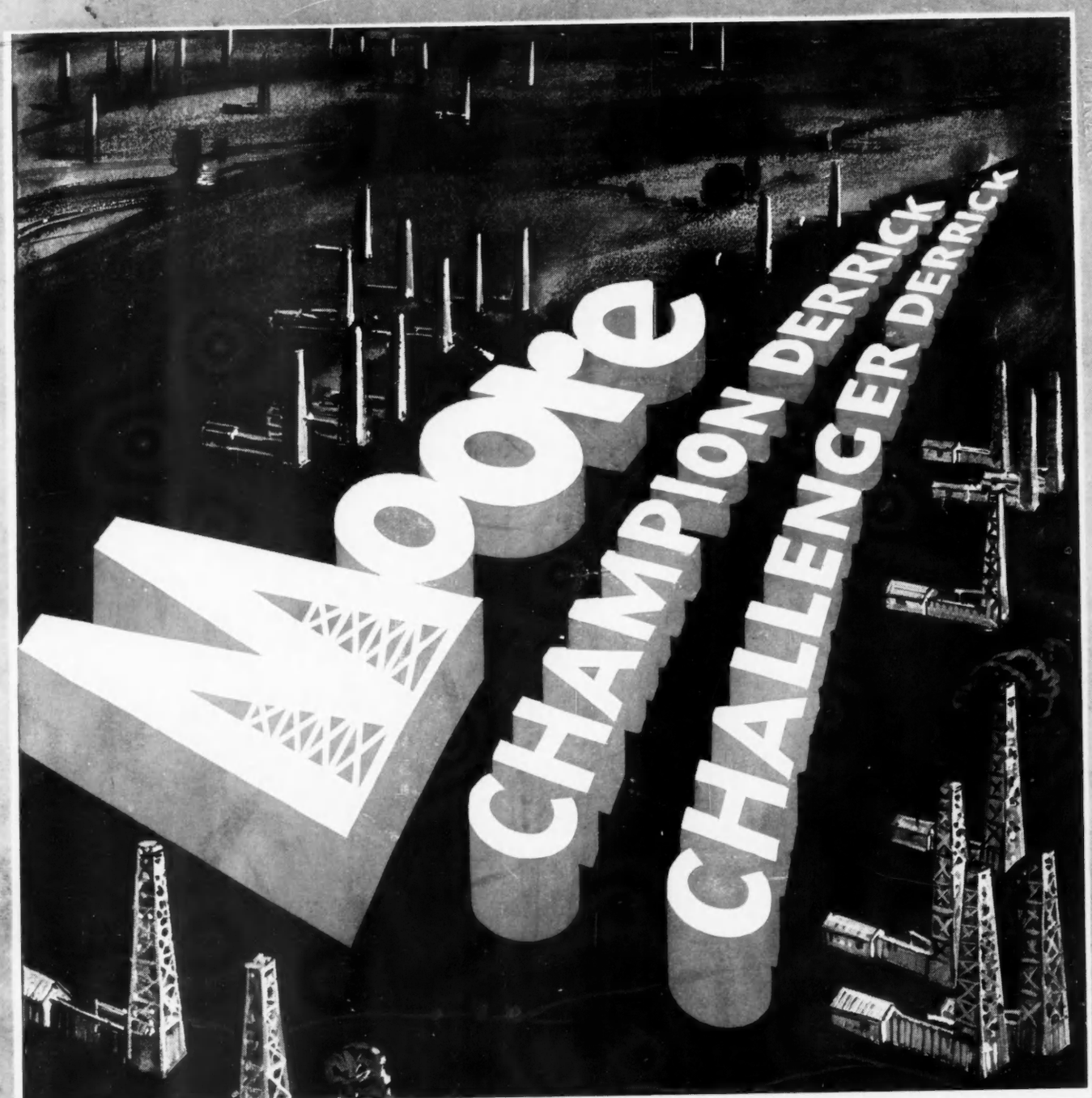
15 CENTS A COPY

THE OIL WEEKLY

OIL & GAS ENGINEERING

News Statistics



March 20, 1931

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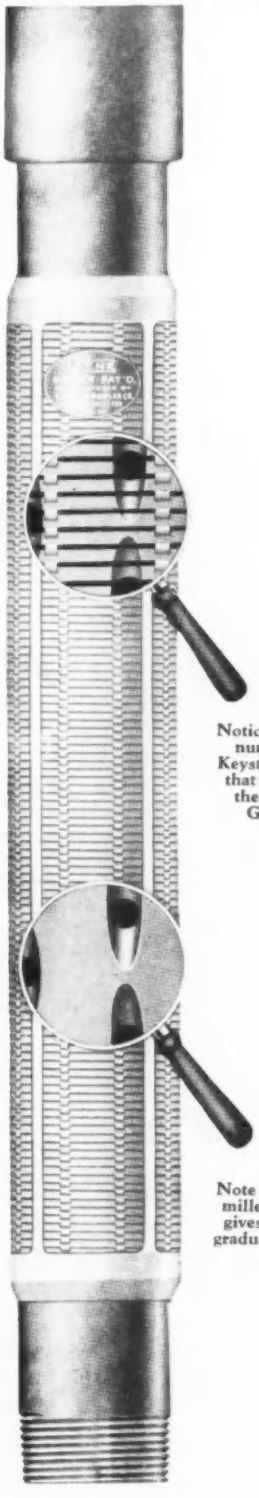
MAXIMUM PRODUCTION

from low pressure wells

with

THE LAYNE



Notice the large number of Keystone Wires that pass over the Milled Grooves

Note how the milled groove gives a large graduated inflow area.

MILLED GROOVE SCREEN

The Milled Groove perforations, and the continuous keystone wire wrap provides a greater inlet area, thus allowing a faster, freer flow of oil into the pipe or tubing. So effective is this principle that production of many wells equipped with this screen has increased from 33-1/3% to 100%.

Accurate spacing of the grooves and keystone wires eliminates any possibility of clogging. The screen has sufficient strength to stand 8000 feet of drill pipe.

Install Layne & Bowler Milled Groove Screen for greater production and complete freedom from screen difficulties.

The Layne & Bowler Co.

HOUSTON, TEXAS

The Layne New York Co., 30 Church St., New York

The Layne & Bowler Corp., Los Angeles, Calif.

Vickers Limited, London, England

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STURDY and EFFICIENT

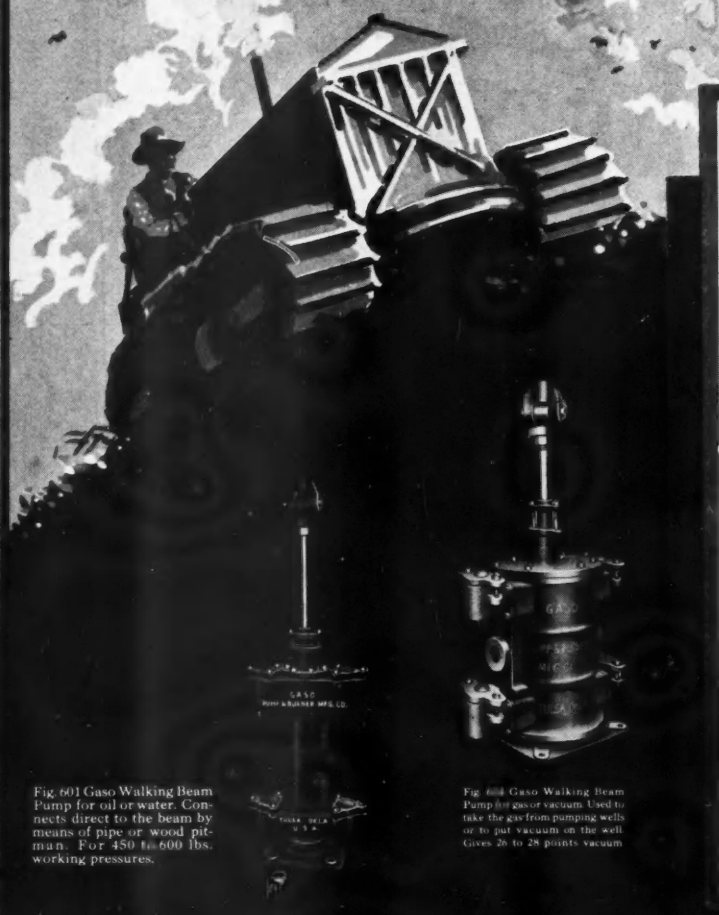


Fig. 601 Gaso Walking Beam Pump for oil or water. Connects direct to the beam by means of pipe or wood pitman. For 450 to 600 lbs. working pressures.

Fig. 604 Gaso Walking Beam Pump for gas or vacuum. Used to take the gas from pumping wells or to put vacuum on the well. Gives 26 to 28 points vacuum

Walking Beam, Rodline and Piston Power Pumps — by GASO

These pumps have been perfected through more than a decade of development by an engineering staff that knows intimately the requirements of the oil industry. Carried in stock for immediate delivery.

Send us your requirements for detailed data on GASO Pumps for every purpose.

GASO PUMP & BURNER MFG. COMPANY
Tulsa, Oklahoma
Export Office: New York, New York

Fig. 301 Gaso Piston Power Pump. Jerker Pattern. Withstands the high pressure of main pipe lines, and is equally suitable for any low pressure work wherever push and pull or crank power can be utilized. 750 to 800 lbs. working pressure.

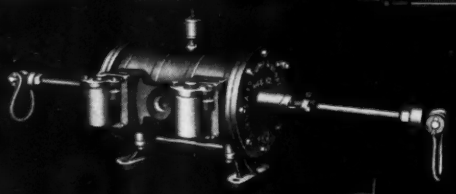


Fig. 604½ Gaso Power Pump for gas or vacuum. Similar to Fig. 604, except designed to connect with the power or surface rods on the well.

Fig. 201 Gaso Rodline Pump. Used in connection with the rod or shackle line between the power and well, or connected to the power line direct with pitman. 450 lbs. working pressure

GASO PUMPS

for every oil industry need

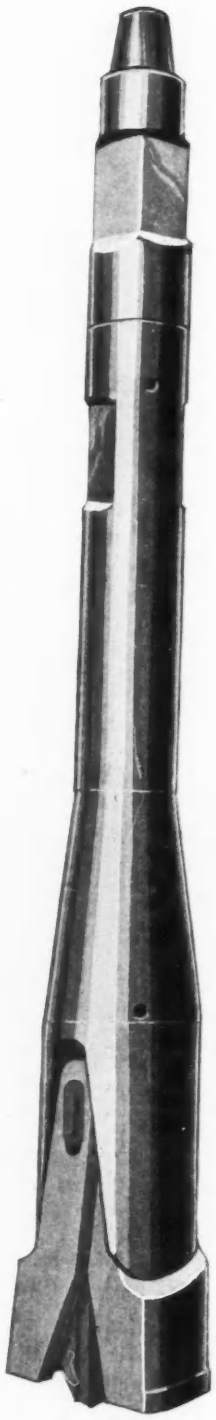
155264

Known the World Over

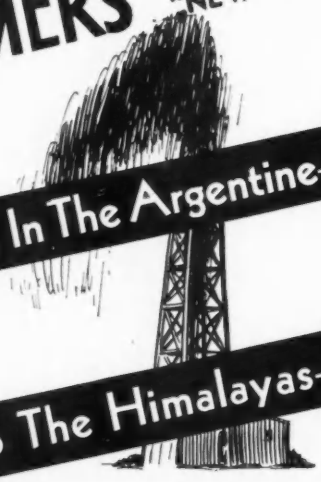
SWAN UNDERREAMERS

"REGULAR" and "NEW TYPE"

"REGULAR" SWAN UNDERREAMER



"NEW TYPE" SWAN UNDERREAMER



In Texas, In Russia, In The Argentine—

From Tampico To The Himalayas—

Where Oil Flows, Or Men Drill—

The Preferred Underreamer —Is The "Swan"

Twin favorites in every oil field in the world. "The Two Swans" owe their popularity to the Confidence of the men who have proved them by long use under all possible conditions.

The Superior Quality, the inherent strength, that is synonymous with the name "SWAN", is known everywhere. Ask the men in the field about "The Tool That Never Fails."

FOR SALE OR RENTAL AT ANY BRIDGEPORT BRANCH

BRIDGEPORT MACHINE COMPANY

Wichita, Kansas

BRANCHES

In All Active Oil Fields in Oklahoma, Texas, Kansas and New Mexico

FOREIGN REPRESENTATIVES

Lucey Products Corporation
3505 Woolworth Building,
New York City, U. S. A.

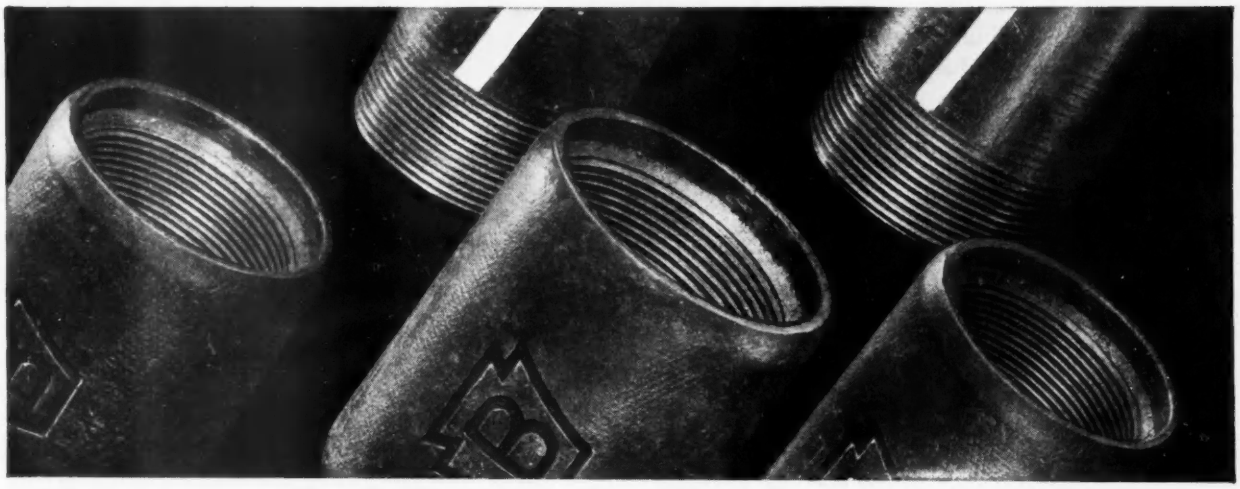
RECOGNITION!

★ ★ ★

Recognition of Byers Genuine Wrought-Iron Pipe as an economical and effective solution for "hot spots" started in the oil fields of the Southwest and spread to every field where corrosion is a serious operating problem. The insistent demand for greater operating economy has brought about a scrutiny of yearly pipe line costs, resulting in "pipe prescription" as a corrective measure.

A well-balanced pipe line, to operate with the lowest yearly cost, may require more than one kind of piping material because of the widely varying soil

BYERS • GENUINE • WROUGHT-IRON PIPE



BYERS • GENUINE • WROUGHT-IRON PIPE

conditions. Experience has indicated those places where Byers Genuine Wrought-Iron Pipe serves most economically. For almost three-quarters of a century Byers has been recognized as standard of wrought iron quality. Service records, on actual installations, enable our engineers to frequently assist in the writing of a "pipe prescription." A. M. Byers Company, Pittsburgh, Pennsylvania. Established 1864.

AN INVESTMENT – NOT AN OUTLAY

LIBRARY
WEST VIRGINIA UNIVERSITY

Like the Elaborate Whirlings of The Dancing Dervishes

AMONG members of Mohammedan religious fraternities there are hermits who are fanatics and whose rituals consist, among other frenzied performances, of an elaborate whirling or writhings. These dancing dervishes are supposed by the Natives to possess miraculous healing and other powers, and exercise considerable influence over the lower classes. They contribute an important share to the mysticism of the East.

It is on the principle of whirling—centrifugal force—that the AMERICAN Oil and Gas Separator is built.

"SEE AMERICAN FIRST"

The Improved AMERICAN Oil and Gas Separator

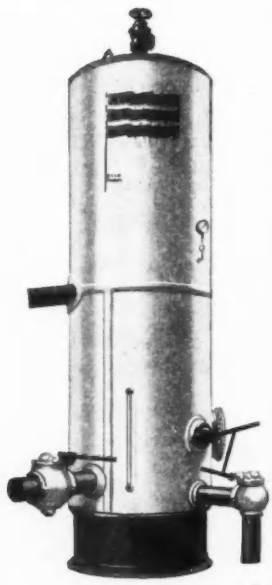
Equipped with the B. S. & B. Spray Condenser

This Separator involves the use of centrifugal force, plus velocity and gravity, and in such a way as to insure a complete separation of the oil and gas.

Though there is no mystery involved in the construction of this Separator its function is not much short of being miraculous in the way that it completely strips the oil from the gas. This is accomplished through the use of B.S.&B. Spray Condenser, which, by its unique construction, prevents any from being carried away into the atmosphere.

In this Saparator one is insured greater capacity as well as quicker and more efficient operation. The float is on the inside, and is man-size, having a capacity of ten times the small outside float ordinarily used. This large sized float insures greater efficiency in the operation of the oil valve, is more positive in operation, and more automatic.

The Inside Tangential Inlet, the Disc Form Baffle, the Centrifugal Force Breaker, Flange Quality Steel shells and heads of extra thickness, the low fittings are other features that add to the Improved American Oil and Gas Saparator, proved by performance throughout the Mid-Continent and Rocky Mountain Fields.



Let us tell you the story as to the effectiveness and economy of the Improved American Oil and Gas Separator. Please write or wire Dept. AA-17.

American Tank & Equipment Corp.

A SUBSIDIARY OF
BLACK-SIVALLS & BRYSON, Inc., Bartlesville, Okla.
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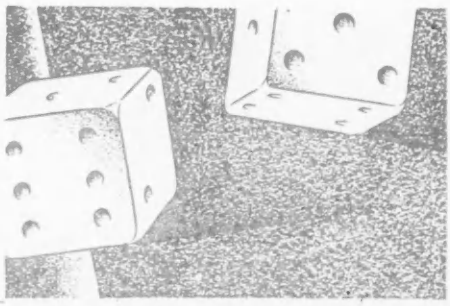
If You Must Gamble Don't Do It With PIPE

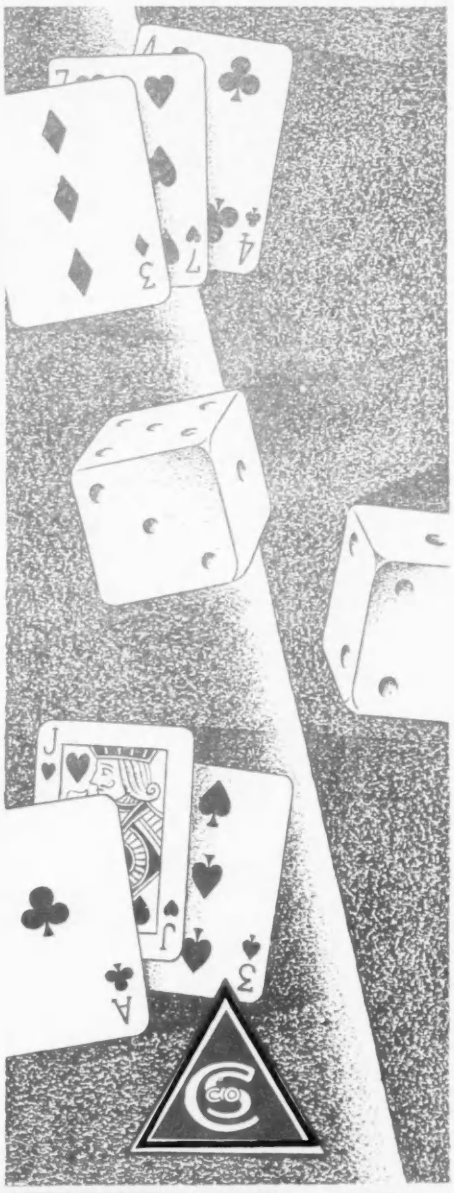


PLAY SAFE!

YOUNGSTOWN PIPE

The loss of even a shallow well is a serious and costly matter.

In shallow wells—
deep wells—
cable tool wells—
rotary wells—
wherever you have use for pipe, use this good pipe.



"If Continental Sells It....There Is No Better"

THE CONTINENTAL SUPPLY CO.

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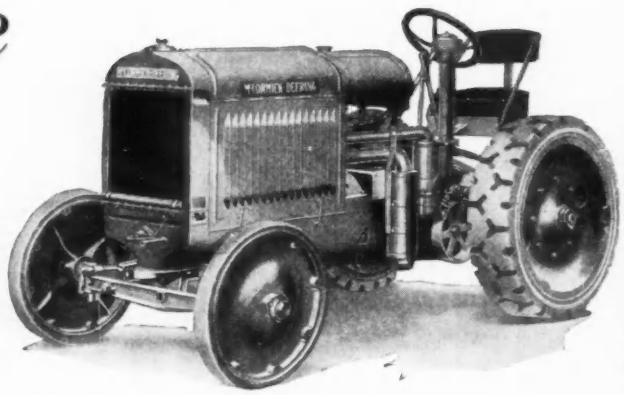
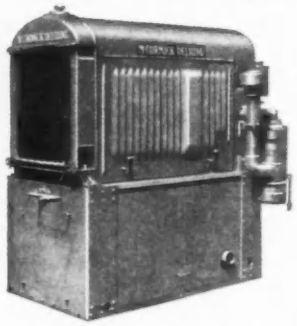
CONTINENTAL

McCormick-Deering Service —*Always Close At Hand!*



Out along the highways and byways of America stretches a network of service stations offering to users of McCormick-Deering Industrial Power a uniformly high standard of service supervision, whether the equipment is operated in congested city areas or in the most remote rural communities.

FEW mechanical devices are qualified to act in so many roles as the McCormick-Deering Industrial Tractor is called on to play. It is subject to an amazing variety of installation, combining with endless types of equipment. General industry has set it to work by the tens of thousands, at a thousand ingenious jobs. It is pulling, pushing, hauling, and hoisting; delivering flexible power in the factory and the mill, in the warehouse and the mine, in the oil field and the railroad yard, in the forest and on the public road.



The McCormick-Deering Power Unit is available as independent power plant; as an integral part of high-quality equipment, or as replacement for other forms of power. Two sizes: Model 200, 25 h.p., and Model 300, 40 h.p.

The McCormick-Deering is a remarkably compact outfit, sturdily built for years and years of heavy-duty work. The modern 4-cylinder engine has a ball-bearing crankshaft, removable cylinders, high-tension magneto ignition, oil filter, air cleaner, fuel filter, and replaceable parts throughout. It is a quality tractor from end to end, available either as a complete unit or built into an almost endless variety of special equipment. Built in two sizes, Models 20 and 30.

INTERNATIONAL HARVESTER COMPANY
of America
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McCormick-Deering Industrial Tractor Distributors in the Oil Country:

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Concrete Machy. & Supply Co., Los Angeles, Calif.
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Industrial Machy. Co., Kansas City, Mo.
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Resistcor Engineering Corp., Muskogee, Okla.
W-K-M Company Inc., Houston, Texas
Ross-Meehan Foundries, Chattanooga, Tenn.
The Shaffer Specialty Co., Tulsa, Okla.
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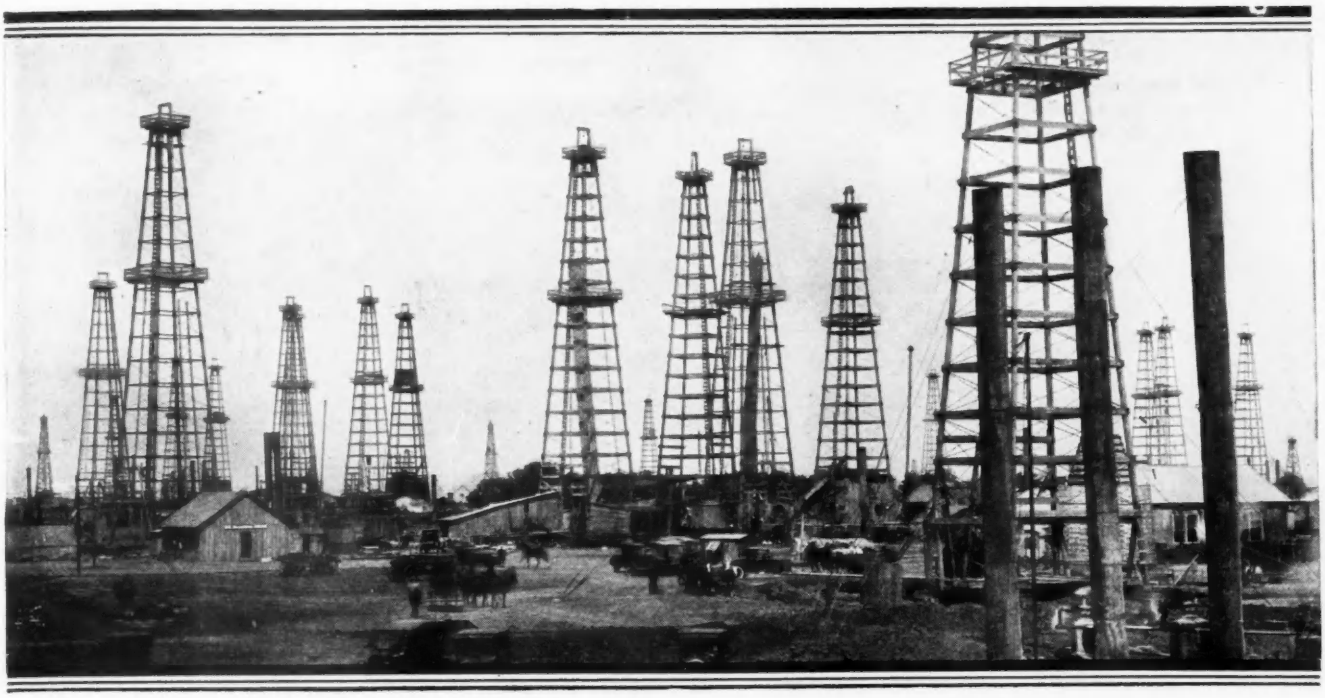
McCORMICK-DEERING
INDUSTRIAL POWER



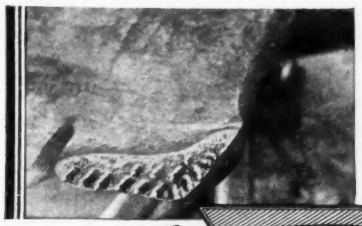
SUPERIORITY OF HAYNES STELLITED TOOLS AGAIN PROVED IN TEST

. . . *Haynes Stellite Saves 5 Days' Drilling Time*

IN the Los Angeles basin, an operator drilled three wells with Haynes Stellited tools and two wells with tools hard-faced with another material. While the five wells were closely grouped, the 3000-foot level was reached in an average of 18 days with Haynes Stellited bits, and 23 days were required with the other bits.

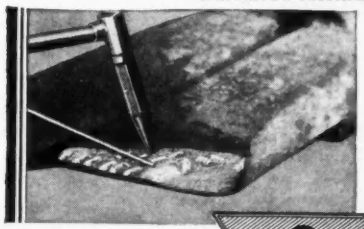
Consider the advantages of 5 days less drilling time! It means 5 days less labor charges . . . 5 days less power consumption . . . 5 days less wear and tear on the drilling equipment . . . and the Christmas tree 5 days sooner.

It will pay you to investigate Haynes Stellite—the alloy which possesses 75 per cent more Red Hardness than any other hard-surfacing metal—for plain hard-facing, oil-well drilling tools or as a final coating on tools hard-set with Haystellite, the cast tungsten carbide diamond substitute. Write for our new book, "Haynes Stellite Products in the Oil Fields." Fill in and return the coupon today.



HAYSTELLITE TRADE MARK

A cast Tungsten-Carbide, a diamond substitute



HAYNES STELLITE TRADE MARK

A wear-resisting alloy of Chromium Cobalt and Tungsten

HAYNES STELLITE COMPANY

Unit of Union Carbide UCC and Carbon Corporation

CHICAGO DETROIT LOS ANGELES SAN FRANCISCO
CLEVELAND HOUSTON NEW YORK TULSA

General Offices and Works—Kokomo, Indiana

Haynes Stellite Welding Rod is also available from any of the 42 Oxweld shipping points of The Linde Air Products Company

HAYNES STELLITE · HAYSTELLITE · HASCROME · HASTELLOY

Quality Products, Fair Prices, Dependable Supply, Engineering Service

Haynes Stellite Company, Kokomo, Indiana

Without obligation on my part, please send me a copy of your new book, "Haynes Stellite Products in the Oil Fields."

Name.....

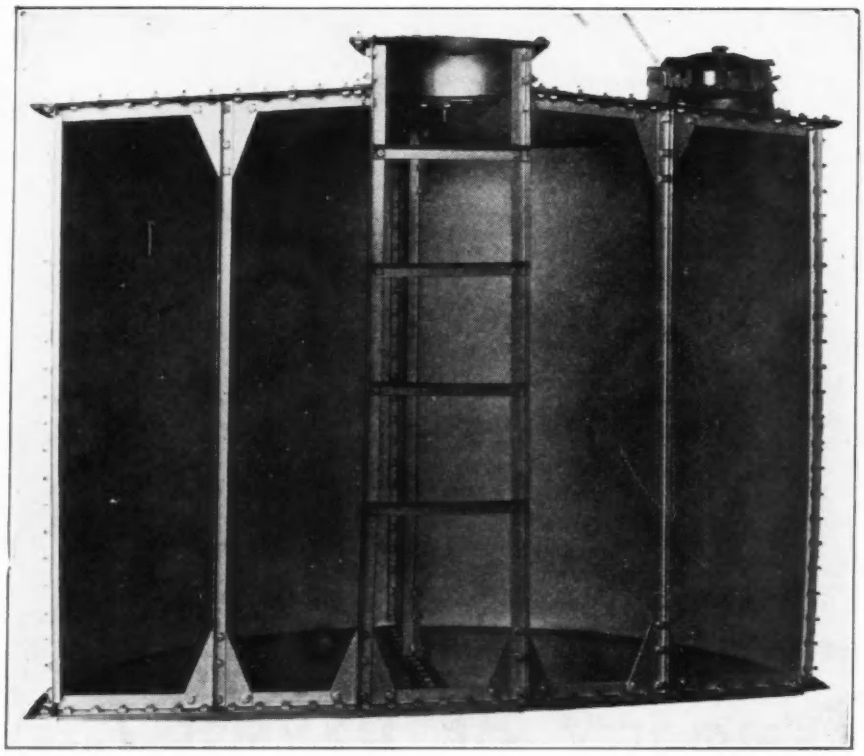
Company.....Position.....

Street Address.....

City..... State.....

OW 3-20-31

NOW — above all times—oil producers are faced with the necessity for eliminating all unnecessary waste.



Elimination of the preventable waste due to inefficient lease storage is an obvious remedy for reduced income from oil production.

Despite proration, fixed prices and inflexible operating costs, oil producers *can* increase their incomes by adopting lease tanks which eliminate breathing losses.

Our *Vapor-Pressure* Tanks

add to your net income the value of all the oil ordinarily wasted by breathing. These tanks are made of not less than 12-gauge rust-resistant Keystone Copper Steel, heavily reinforced and tied as shown in the above cross-section view, painted with aluminum and equipped with valves operating at 16-oz. pressure and 2-oz. vacuum. This construction conserves your oil between the wells and the pipeline—and also reduces tank replacement costs.

The summer season of heavy evaporation losses is at hand. Get full particulars NOW about Maloney Vapor-Pressure Tanks.

Maloney A.P.I. Bolted Steel Tanks conform with A.P.I. dimensional standards and carry the official A.P.I. monogram.

MADE OF

KEYSTONE AMERICAN

Packed in steel-bound crates for export

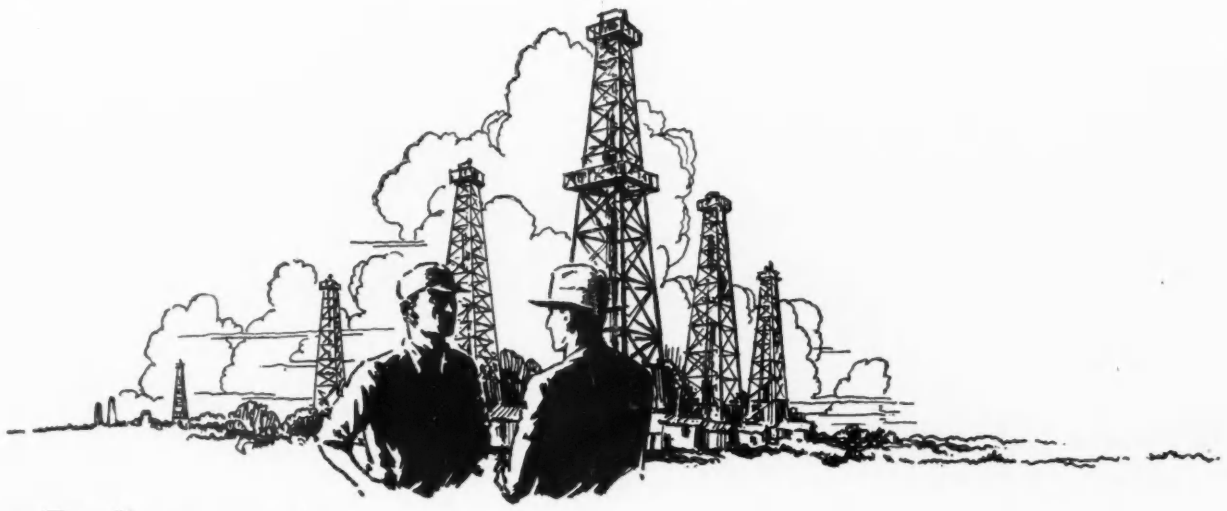
"Alone in Quality"

MALONEY TANK MFG. COMPANY

110 S. PEORIA, TULSA, OKLA.

Distributers at All Principal Petroleum Points

MALONEY



The Darling reporter asked . . .

"Have you found that Darling Valves last longer?"

"Yes, we have—though we don't know just how long Darlings do last. We've had that first one on the line over there for a great many years. It's still in first class condition and we expect it will be as long as we have use for it. We're using Darlings on all new work and for all replacements, so you know we must think that they'll stand the gaff of long, hard service."

Soundness and simplicity of mechanical construction insure the long life of Darling Valves—for they do stand up under adverse conditions.

The revolving gate disc, an exclusive Darling feature, is one of the most important factors in prolonging the life of Darling Gate Valves.

The complete story behind Darling Valve performance will be gladly sent you on request.

DARLING GATE VALVES

Darling Valve & Mfg. Co.

Williamsport, Pa.

New York Los Angeles Oklahoma City Houston

Mid-Continent Distributors:

Frick-Reid Supply Corp. International Supply Co.

Foreign Sales Manager

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Room 1405, 152 West 42nd Street

New York, N. Y.

Darling Forged Steel Gate Valve, Dar-a-loy trimmed. For Drilling well control, flow lines, high pressures, and other hazardous conditions.

Darval Semi-Steel Gate Valve, Dar-a-loy trimmed. Made in all sizes for general field use, pipe lines, drilling through, well control and well flow lines.

Inbuilt RUGGEDNESS makes Gilmer V-Belts indispensable to the modern V-Belt Drive

CROSS SECTION E

IT'S what is *inside* the jacket that gives the Gilmer its *superiority*

IT'S what is inside—*and what happens inside* when the belt is bent around a sheave that means all the difference between ordinary V-Belt performance and the superlative efficiency that is Gilmer's.

It is not by accident — not by chance—that Gilmer V-Belts possess this unusual efficiency. Every feature is there for a specific engineering purpose . . . At the lower part of the belt, where tremendous compression tends to disintegrate the ordinary belt, Gilmer places a special pliable compression rubber that successfully resists this force . . . At the upper part, where the belt is subjected to repeated bendings, a tough, wear-resisting rubber is found that definitely prevents deterioration.

AND between the upper and lower layers of special rubber is the *neutral axis,* where neither tension nor compression are found. At this point, in every Gilmer V-Belt, superimposed layers of unusually strong cords are placed—*a feature originated by Gilmer engineers.* These cords transmit the load without stretching and setting up internal friction.

Add to these features the tough, wear-resisting jacket, the perfect vulcanizing of the belt into one solid, elastic mass plus the fact that every Gilmer V-Belt is invariably accurate in dimensions and angles, and you will realize why Gilmer V-Belts never slip, never twist or buckle in the grooves. That is why industry after industry is turning to Gilmer V-Belts to help them solve their endless belt problems. Try a set SOON. L. H. Gilmer Co., Tacony, Phila., Pa.

Gilmer

Makers of the World's Best-Known V-Belts

WICO SERVICE

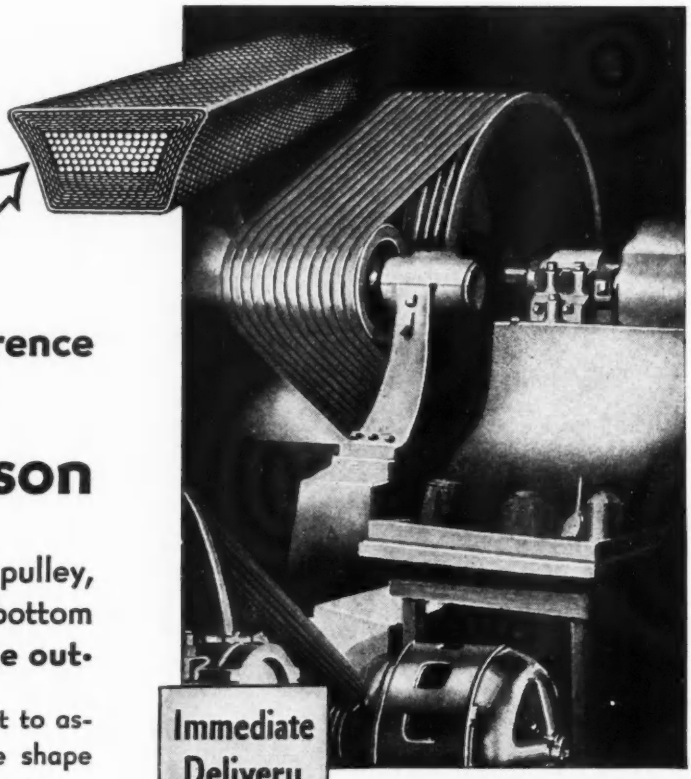
The ownership of a Wico Magneto entitles you to Wico service. Don't sacrifice this privilege or the efficiency of your ignition equipment, by dealing with unauthorized repair shops.

FACTORY BRANCH
121 WEST 8TH ST., TULSA, OKLA.

WICO ELECTRIC COMPANY

SPRINGFIELD, MASSACHUSETTS

That Simple Curve



makes all the difference in the world!

--and Here's the Reason

Each time a V-belt bends around its pulley, the top of the belt **narrows** and the bottom **widens**, while the sides of the belt **bulge out.**

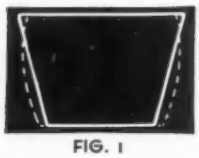


FIG. 1

This forces a **straight-sided** belt to assume, in the sheave groove, the shape shown by the dotted lines in figure 1.

Consider what this means. (1) The bulging produces uneven wear on the sides of the belt and this means **shorter life!** (2) The full side of the belt does not uniformly grip the pulley--a definite loss in transmission efficiency.

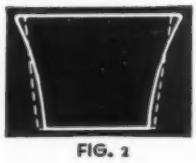
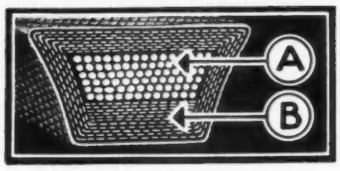


FIG. 2

How different the V-belt built with the precisely engineered **concave side** (patent pending)--the Gates Vulco Rope!

Bend this belt and you will see the **concave** side become **straight.** (Fig. 2). As it bends around its pulley, this belt assumes a shape that **exactly fits** the sheave groove. **Two advantages:** (1) Wear is evenly distributed over the entire side of the belt--**longer life!** (2) There is full side-width grip on the pulley --full delivery of power!

Immediate Delivery on Complete Drives 1/2 H.P. TO 100 H.P.



Patented Construction—United States Patents 1,354,738 and 1,400,539 protect both the principle and the construction of a V-belt having a center of endless cords and a bias-cut cover.

Send for This Profit-Builder

A NEW BOOK ON TRANSMISSION

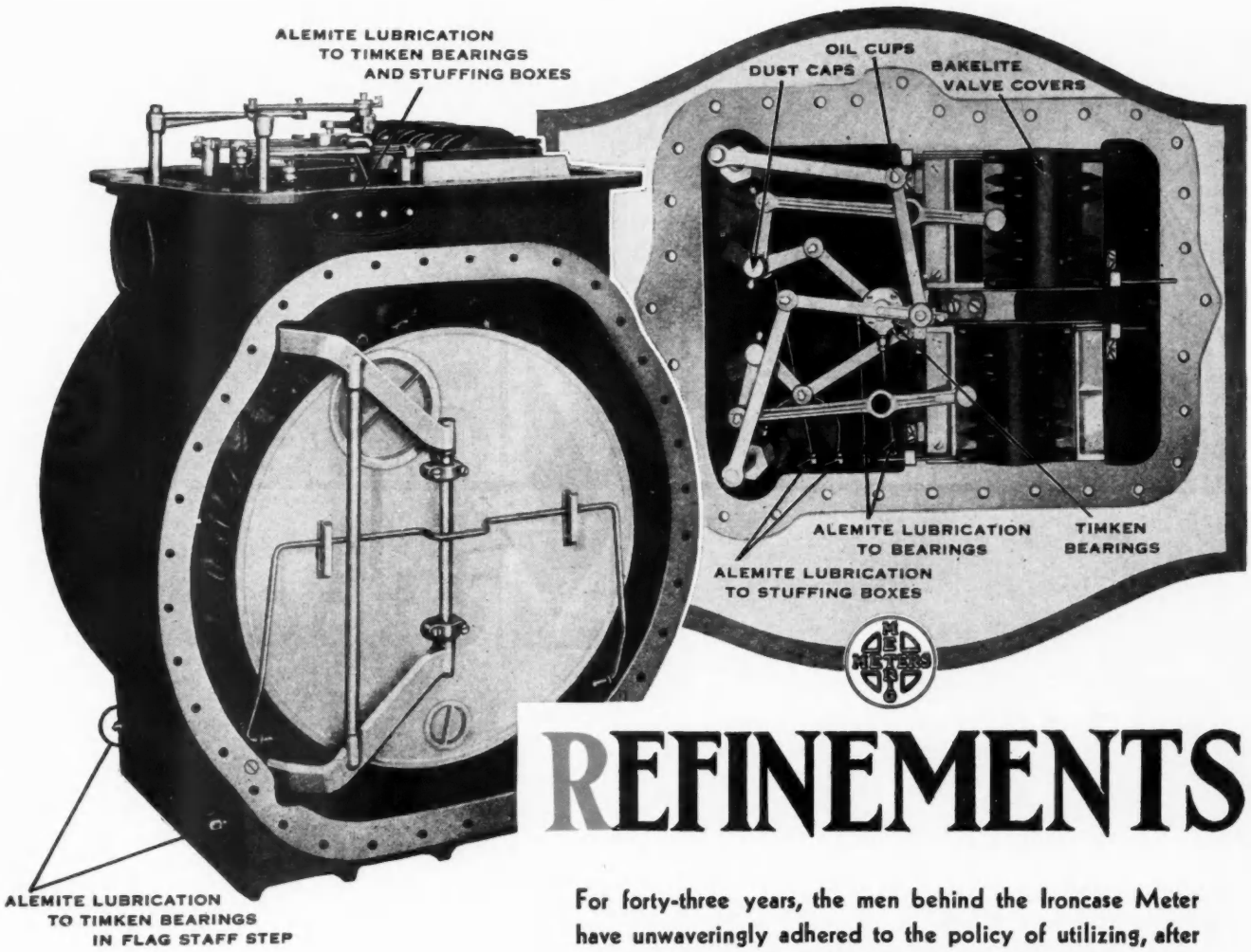
Without obligation, our engineering department is prepared to assist in designing a drive that efficiently meets your needs. This book, mailed free, will give you valuable information.

GATES VULCO ROPE

MULTIPLE V-BELT DRIVES

Manufactured by Gates Rubber Co., Denver, Colo.

"The World's Largest Manufacturer of V-Belts"



REFINEMENTS

For forty-three years, the men behind the Ironcase Meter have unwaveringly adhered to the policy of utilizing, after thorough test, every applicable discovery or invention, every worth-while new material or new process.

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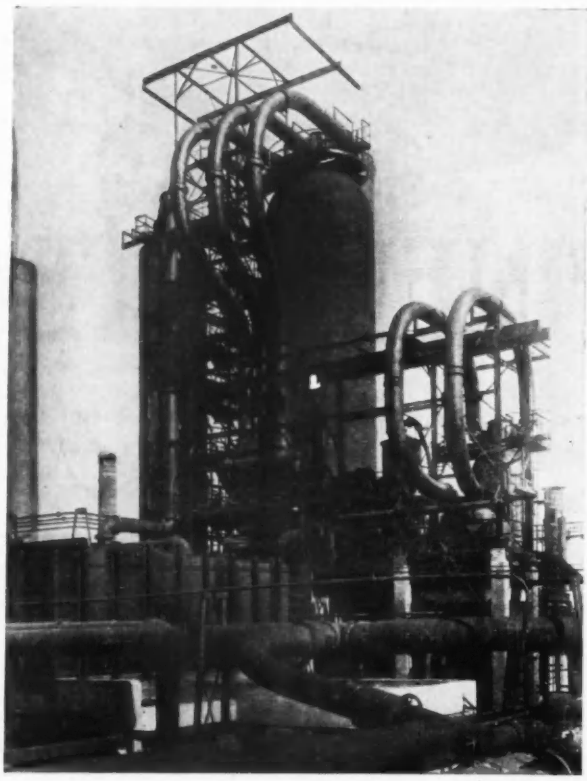

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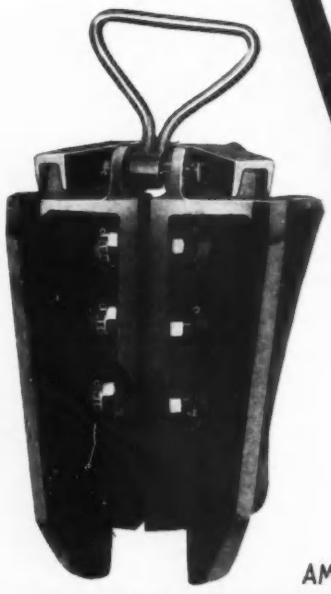
By W. H. Spurlin
Drilling Supt. Hobbs, N.M.



The Carl Short Drilling Crew at Hobbs, N. M., State C-1 Amarada Petroleum Corporation.
Left to right:
L. J. Curry, Derrick Man
W. J. (Peewee) Spurlin, Supt.
Lee O'Banion, Driller
C. K. Stillwagon, Mission Sales Representative
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GENERAL OFFICES: HOUSTON, TEXAS

THE OIL WEEKLY

MARCH 20, 1931
Vol. 61, No. 1

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Editor

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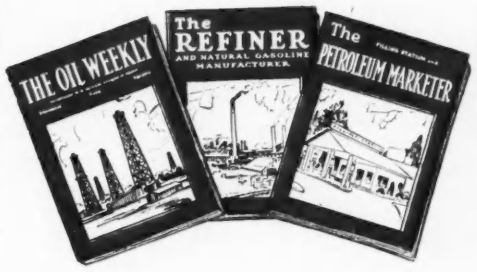

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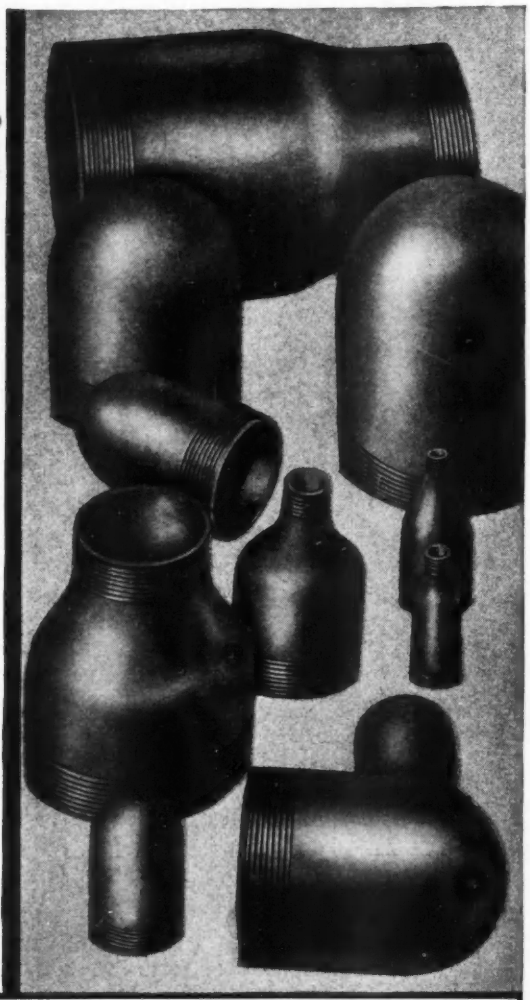


"OILWELL"

THE OIL WEEKLY

VOLUME 61, NO. 1 MARCH 20, 1931

East Texas Line Building *Depends on* Legislature

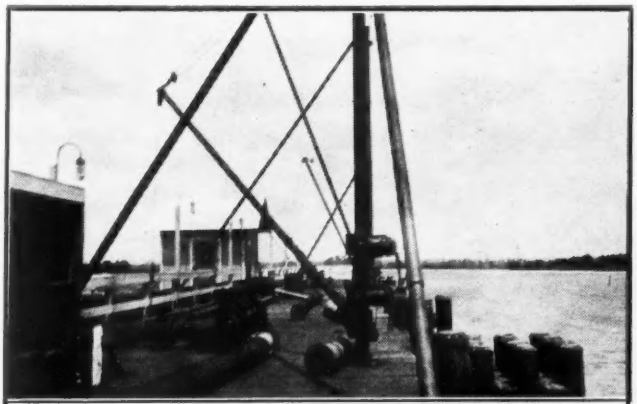
HOUSTON.—Unless it is forced to abandon present plans through passage by the state legislature of threatened adverse pipe line legislation, Gulf Coast Pipe Line Company, a wholly owned subsidiary of Moody-Seagraves-Morgan Company, Houston and San Antonio, will build a 12-inch welded oil pipe line, approximately 190 miles long, from the Gregg-Rusk County district, East Texas, to tidewater outlet on the Neches River a few miles below Beaumont.

The line as proposed will have capacity of approximately 60,000 barrels daily. The main line station is to be at Kilgore, according to present plans, with four booster stations between that first station and the coast. All the stations will use electric power.

Present plans contemplate loading of sea-going tankers with East Texas crude over the modern, large-capacity docks of Yount-Lee Oil Company, although Gulf Coast Pipe Line Company originally considered providing its own loading facilities. Yount-Lee Oil Company has confined its activities largely to the Gulf Coast in the past, producing oil in various Texas-Louisiana salt dome fields, but it became definitely identified the past week among East Texas producers through consummation of purchase from Farrell, Moncrief, Showers, Baker and Noble of their half interest in the Lathrop area, Gregg County, discovery well, and their large lease holdings surrounding that producer.

It is proposed that the large trunk line of Gulf Coast Pipe Line Company will operate as a common carrier, aside from handling the anticipated production of Gulf Coast Oil Company, producing subsidiary of Moody-Seagraves-Morgan Company; while Yount-Lee Oil Company's East Texas crude will also be moved to the coast through the system, that company's newly acquired acreage in Gregg County serving incidentally now as added justification for construction of the large pipe line.

Yount-Lee Oil Company has been particularly prominent in Gulf Coast development since 1925 by virtue of discovering and subsequently recovering high percentage of the prolific deep production at Spindletop field just outside of Beaumont; and adjacent to that field it has one of the largest and best equipped and maintained tank farms on the Gulf Coast, with new, efficient tanker loading facilities nearby on the Neches River.



Yount-Lee Dock on Neches River at Beaumont, proposed terminus of 12-inch line to serve new East Texas area

Contract Let

An airplane survey for the proposed large East Texas carrier has been completed, and work is going forward on regular detailed survey. The latter work is being done by Fredell Construction Company of Denver, Colorado, which has a contract for construction of the line, subject to decision of the legislature against imposing certain proposed restrictions upon pipe line companies. If such feared legislation is passed, all the work which has been done will be sacrificed, and all plans for the pipe line will be abandoned.

If definite assurance is given, however, that the proposed laws will not be enacted, construction of the large East Texas project will begin immediately and rushed to completion. With the weather permitting it is figured that the line can be finished within 75 to 90 days.

It is planned that the trunk line will follow virtually an air-line from the

(*Continued on page 30*)

Angle Hole Core Drilling *for* Structure *and* Production

By M. C. ALLEN and P. H. BOHART

DRILLING holes from the surface at any angle below the horizontal has been common practice for many years in mineral prospecting. From the drifts and stopes of mines, drilling holes at any angle of the 360 degrees, even to vertically upward is usual. This angle drilling has all been done with the diamond core drill which permits setting the "swivelhead" of these machines in any desired position. The "swivelhead" of a diamond core drill has two functions, the rotation of the rods, or drill pipe, and the feeding of the bit into the formation at any desired speed.

The core drill as used for outlining oil structures has been gaining favor for the past six or eight years. The majority of this work consists of drilling vertical holes to a known key bed or marker. In this case the holes are spaced at pre-determined intervals on the surface and the elevation above sea level at the collar of each hole is determined. By measuring the distance between the collar of each hole to the key bed, it is a simple matter to plot the sub-surface structural conditions.

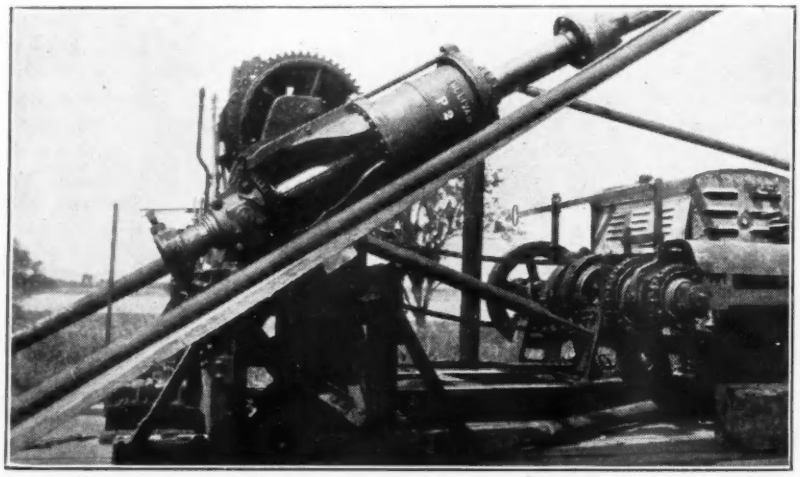
In other places, however, different surface conditions exist, and it is here that the ability of the core drill to drill angle holes finds its usefulness.

Prospecting for oil is often carried on in jungles or deserts or other places where transportation is expensive and where for various reasons it is desirable to get the maximum amount of information possible from each location; for instance, a case would be a jungle area where a great deal of money must be spent clearing a working space and building a road to it.

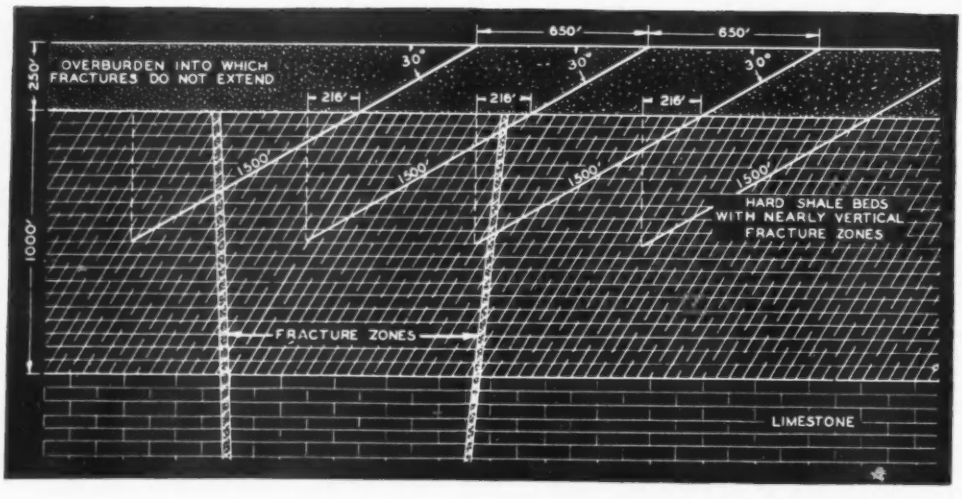
In such a case the core drill can obtain practically as much information at one location, if use is made of its ability to drill angle holes, as could be obtained by drilling three vertical holes at different locations.

The procedure would be as follows. A vertical hole would be drilled to the key bed. Next, without moving the drill but by re-arranging the tripod and tilting the swivelhead, a hole would be drilled to the key bed, at let us say, 45 degrees below the horizontal in a north and south plane. The drill would then be turned through 90 degrees and a hole drilled to the key bed at 45 degrees (or any desired angle) below the horizontal in an east and west plane. By the application of a little trigonometry, the dip and a strike of the underlying strata can thus be accurately determined from information obtained at one surface location.

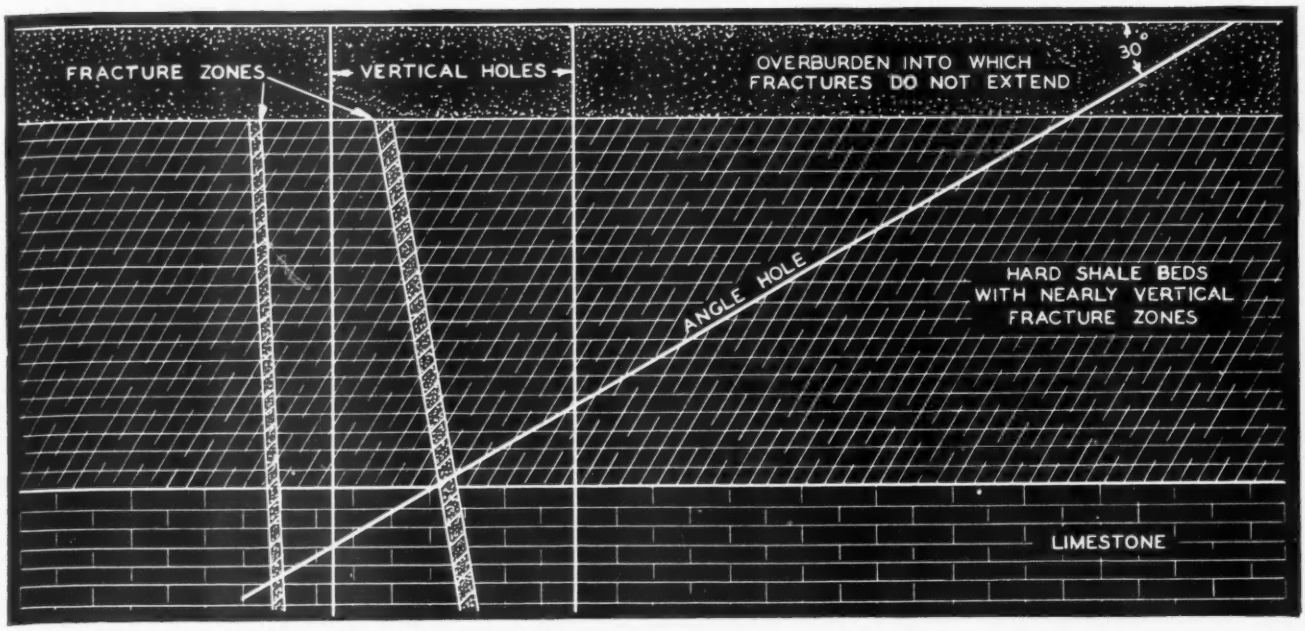
The above is based on the assumption that an ordinary "anticlinal" or "domal" structure is being sought. In some fields, notably those in the Tampico, Mexico, area, oil is found in fractures or fissures in the limestone, which are



Heavy duty core drill driven by gasoline engine with swivel head set to drill 30 degree hole. Note that the axis of the swivel head is nearly in the plane of the two front legs of the tripod or derrick



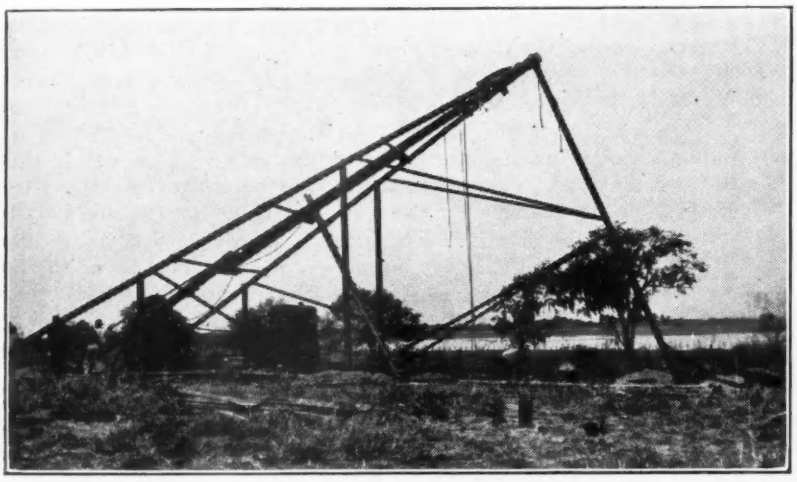
Sketch showing the proper spacing of 1500-foot angle holes drilled at 30 degrees from the horizontal with a 25 per cent overlap in the beds below an overburden which is 250 feet thick. The spacing of the holes varies with the thickness of the overburden



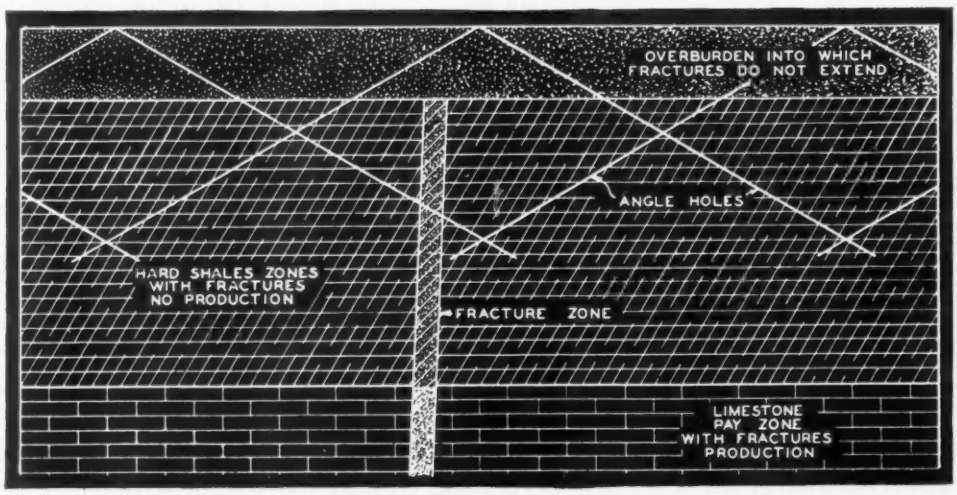
A sketch illustrating the method of determining the dip and strike of underlying strata by drilling three holes for one location

not detectible at the surface. These fractures, or zones of fracture, are comparatively narrow, almost vertical, and their exact location and trace on the surface are practically never known except after core drilling, and even then they are seldom if ever known with precision. Consequently the chances of intersecting them with a vertical hole are exceedingly slight, which fact accounts for the high percentage of dry holes common in the fractured limestone fields of Mexico—the so-called heavy oil district. Furthermore, in order to be a commercial producer, a well must intersect these fractures above the general salt water level, and in the limestone section, where the fractures are sufficiently open to permit commercial production. Thus it will be seen that in order to be a producer, a well must not only intersect a fracture, but must intersect it within a certain horizon. Obviously the chances against intersecting an almost vertical fracture, especially when the location of the fracture is not known, are very great indeed, and it is not difficult to understand that this fact, resulting in a large percentage of failures, materially affects drilling costs over a period of time.

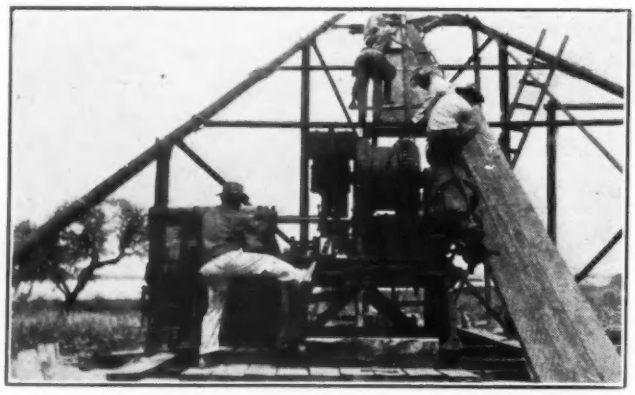
The use of the core drill to make angle holes is a very great advantage in locating such fractures. Although the fractures in the limestone cannot be detected on the



Steel tripod arranged for drilling 30-degree hole


OVERBURDEN INTO WHICH FRACTURES DO NOT EXTEND
ANGLE HOLES
HARD SHALES ZONES WITH FRACTURES NO PRODUCTION
FRACTURE ZONE
LIMESTONE PAY ZONE WITH FRACTURES PRODUCTION

A sketch illustrating method of picking up hidden fractures by drilling two angle holes from each location. The spacing of the surface locations depends on the thickness of the overburden



Rigging up. Note construction of tripod or derrick; also square Kelly

surface, they are reflected upward in the overlying formation to a point where they can be detected by comparatively shallow core drilling if the core drilling is done in angle holes.

The procedure in locating fractures by shallow angle hole drilling is obviously simplified, if the approximate strike, or trend of the major fractures is known, in which event the angle holes are drilled along a cross-section at right angles to the strike. If the strike is not known, then it is necessary to drill the holes along cross-sections in two or more directions until it has been determined.

Once the strike, or trend, is known, the purpose of the shallow core drill is to completely explore a property, or in other words, to locate all of the fractures or fracture zones. Either of the two systems illustrated on sketches may be used. In one case two holes are drilled, in opposite directions, from one setup. In the other case all holes are drilled in the same direction and only one hole is drilled at each setup. The determining factor in selecting one or the other methods is the cost.

It will be noted that where there is an overburden into which the fractures do not extend, it is necessary to overlap the holes in order to completely explore the cross-section drilled.

Angle holes do not always follow the course on which they start, but have a tendency to gradually deflect downward from the original angle; in other words, to steepen with depth. Largely for this reason the desirable angle at which to start a hole depends on the amount of overburden and the depth it is necessary to drill. In some cases a 30 degree angle will work out to be more efficient and in other cases 40 or 45 degrees.

Locate Fissures

Both Huasteca Petroleum Company and Mexican Gulf Oil Company have demonstrated the practicability of locating fissures by shallow angle hole drilling, the holes ranging from 300 to 1000 feet, measured depth. Furthermore, where the location of these fractures at shallow depths has been determined in this way and followed by the drilling of deeper holes to intersect them in the limestone section, it has been found that apparently the fractures located near the surface represented the upward extensions or continuation of fractures extending to a considerable depth. Hence this method of core drilling promises to be an important step preparatory to production drilling.

Mexican Gulf Oil Company has carried the theory of angle hole drilling a step further, having drilled several wells in this manner to an approximate depth of 2500 feet for production. For this work they use a Sullivan P-2 drill, originally designed to be run with steam, which they converted to accommodate a direct gasoline engine drive, as shown in an accompanying photograph. This machine is capable of handling ordinary three-inch drill pipe to a depth of 2500 feet, or size "N" drill rods 2 13/16-inch O.D. to a depth of 5000 feet. They use eight-inch conductor, set a small amount of six-inch surface casing, and four-inch casing to the top of the lime, and drill the lime with 3¾-inch rock bit on "N" size drill rods.

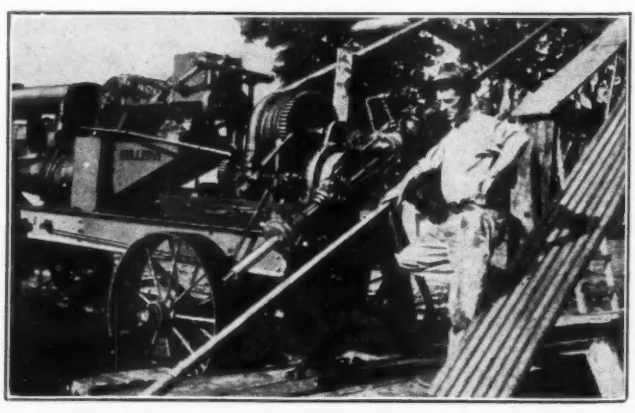
As in the case of the shallow holes, the deeper angle holes deviate downward from the angle at which they are started. However, with precautions taken, as a result of a study of the causes for this deviation, this effect has been materially decreased. Furthermore, the deviation experienced does not materially detract from the results obtained, especially when it is borne in mind that a horizontal penetration of from 250 to 350 feet in the limestone section is obtained with each well.

Angle Drilling Not Difficult

To anyone not familiar with angle hole drilling, it might appear that the operation would be slow and awkward. However, the details of drilling in this manner have been worked out by Mexican Gulf Oil Company to a point where drilling at an angle is carried out with practically the same ease as drilling a vertical hole to the same depth. One of the most important developments in this connection is the special tripod derrick, the plane of the front legs of which as shown in photographs 7 and 9, is at the same angle of 30 degrees from the horizontal at which the hole is started. Drilling time compares very favorably with the drilling time made on a vertical hole. For example, a well which was drilled to a measured depth of 2500 feet was completed in 32 days' time. This includes moving on the location, rigging up and tearing down upon the completion of the well. Actual drilling consumed 23 days, representing an overall drilling record of 109 feet per day, including cementing time. The highest footage obtained on any one day was 500 feet, while fish tailing through the upper shale section.

One marked advantage in drilling for production by angle holes under these circumstances, speaking of course of a territory where production is coming from vertical fractures, is that only the approximate location of the fissures need be determined in advance, as indicated on illustration No. 5, and for that matter even if the location of the fissures is not known in advance, the angle hole explores a great deal more territory than a vertical hole and has every advantage over a vertical hole even where the location of the fractures is not known.

Therefore, in addition to its application to shallow core holes, angle hole drilling, based on Mexican Gulf Oil Company's experience, appears to be, in certain localities and under certain conditions, an advantageous substitute for ordinary vertical drilling.



Core drill with capacity for drilling 1500 feet, recovering two-inch core

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More Answers to The Oil Weekly's Question

"WHY?"

"I NOTE that in the March 6 issue of THE OIL WEEKLY you raise the question as to why crude oil prices went down in the face of an apparently improved statistical position for this commodity. I think that the answer to your question is rather clearly indicated in a paper entitled 'Economics of the Crude Oil Potential in the United States,' which I presented before the Petroleum Division of the American Institute of Mining Engineers in New York on February 19. A copy of this paper is herewith inclosed. I think it unfortunate that there appears to be so much confusion of thought among oil operators as to the real economic forces that are bearing down upon them. It would seem to me that the first step toward a correction of our problem would be a correct diagnosis of the trouble, for unless we know what is wrong it is difficult to take the proper corrective steps. I wish it were possible that the adverse effect of our large potential could be brought home to the rank and file of the oil operators."

JOSEPH E. POGUE,
Consulting Engineer, New York.

In the paper to which Mr. Pogue refers he deals with the potential production as set up by various production control agencies as being the cause of low prices. It is regretted that space does not permit its reproduction further than the brief presented in an article by H. J. Struth in THE OIL WEEKLY of February 27 (page 30-56). Quoting this brief: "Mr. Pogue stated that if all drilling ceased, the potential would be sufficient to maintain the supply of crude petroleum in over-all balance with demand for approximately 28 months. At the end of this period a price of $1.75 for Mid-Continent crude would be indicated. Under subnormal drilling, with an annual initial of 2,500,000 barrels, it would require 50 months to eliminate the crude oil potential."

WHY?

(Reprinted from The OIL WEEKLY, March 6, 1931)

IN August, 1929, the daily crude oil production of the United States was 2,973,450 barrels per day.

The price of 36 gravity Mid-Continent crude oil at that time was $1.45.

As a result of heroic efforts on the part of oil producers toward proration and curtailment, the daily crude production had been cut on February 21, 1931, to 2,165,250 barrels, a decrease of 808,200 barrels.

During 1930 22,467,000 barrels of crude oil were taken from storage and 62,129,000 barrels of crude oil and 16,927,000 barrels of gasoline were imported from foreign countries.

During the period from August, 1929, to February, 1931, the retail gasoline market was not materially lowered. Indeed, in some sections it showed an increase.

Yet on February 20, 1931, the crude oil market in the Mid-Continent had dropped to 95 cents a barrel for 36 Gravity oil.

Many are saying that this reduction in the crude oil market is poor pay for the efforts toward curtailment and proration that have been made.

Summarizing the figures with reference to production decrease, crude oil storage decrease and comparing them with the crude oil price decrease, *The* OIL WEEKLY is led to ask:

"WHY?"

"WHY, with a decrease of 808,200 barrels daily production from August, 1929, to February 21, 1931, with a reduction of 22,467,000 barrels of storage, should the price fall from $1.45 a barrel to 95 cents? Why during this time should the gasoline market remain practically unchanged?

"The big companies are playing the game—your production and my production, your efforts and my efforts to change things are only pawns and incidents in the game. Our knowledge of facts are limited, and what we do have, must be obtained in the realms of deduction, and supplement this by doing some tall guessing.

"The situation of low prices for less oil has developed from two causes. The start was due to one cause, the continued depression to lower levels to another, or an outgrowth of the first. The start was due to the lack of a tariff and the desire of the importing majors to make room for more foreign oil. Their strategy was 'Conserve United States oil for future needs.' Their tools were the newspapers, American Bar Association, Mr. Wilbur and others. After quite a lot of preparation, then came proration.

"They would have preferred to keep prices up and make that much more profit on the imported oil, but such was not possible. A slowdown had to be brought about—curtailment was their program, so they brought about proration and got all the advantage accruing from a restricted outlet based on their own nominations. Proration necessitated the use of potentials. Potentials for the purpose for which it was used encouraged exaggerations. The idea was put over on the theory that it was needed to save the price structure. Some doubt existed about it sticking, so then the next move was to immediately cut prices after proration had developed these exaggerated potentials. They claimed the cut was justified in the light of these highly exaggerated potentials. 'Too much oil, we have to cut in spite of proration.' This brought some of the objectors in line and further sold others on the idea that proration was a necessity. Later on it developed that the drill was not slowed down enough and this threatened to develop complaints and potentials that would force more oil takings. The next oil cut was not based on this theory, however. It was blamed on some of the North Texas production being sold to independent refineries at a lower price.

"If one would check the prices paid in California as against what is paid from the Rocky Mountains eastward the proof seems positive that imported oil and the price fixing by the importers is the cause of the low prices east of California. The price of 36 gravity oil in California ranged from $1.46 to $1.72 per barrel, averaging $1.60 per barrel in all fields; while the same grade east of California, except Pennsylvania, ranges from 61 to 98 cents, averaging in all fields 80 cents a barrel. This is a difference of 100 per cent. Other grades differ in like proportion. These prices prevailed up to March 1. There is no oil imported into California; neither are the importers, buyers or price makers in California.

"The continued depression is due to the same cause, but

operating in a different manner. If my deductions don't meet with your approval, all right. I am making them without any claim that I am right.

"You can probably recall that when the price cutting first started that the Sinclair and Prairie companies objected to it—said it was unjustified, etc., and refused to meet the price cut for 30 days. It is easy to figure that when a company has a lot of oil in storage that it is interested in keeping crude prices up in proportion to the cost of this storage oil. When the current price of oil is under the cost of oil in storage it represents a loss, and on this account, where not prompted by other considerations, large holders of oil in storage can be counted on being interested in higher prices.

"What do we see now? The action of the Sinclair does not harmonize with its actions in the past in trying to maintain higher prices. The Sinclair now is very much interested in low prices, bidding only for oil below the market, trying to break down proration, etc. What caused this change? To me, the answer is that it resulted from the trade in which the Standard of Indian bought the Sinclair interest in the pipe line and storage oil—paying cost price. This left the Sinclair sitting on top of the world with a big pile of cash and no high price oil in storage. The Indiana Company did not foresee. The Sinclair's game is to fill its storage with cheap oil and maintain low prices in the United States, so as to be in position to meet competition of cheap foreign oil.

"The situation has thrown a scare into the Indiana Company and put the oil industry in a hell of a fix, for the Sinclair is out gunning for cheap oil to fill a big storage, and be in a position to compete with the importers.

"Looks like the recent cut by the Indiana was done with the idea that if the Sinclair was going to get cheap oil it was going to get it, too. Regardless of how much cheap oil the Indiana gets as compared to what Sinclair gets, the situation as between them will not be changed, for the Indiana still has its high priced storage oil. It looks like this recent cut is playing into the Sinclair's hand. If this company had to pay higher prices, then there would not be so much relative difference in its storage as against the cost of storage oil held by others, or their advantage as importers.

"So long as the Sinclair's storage requirements are unsatisfied and it and other companies have to compete with cheap imported oil, the oil business can expect to be messed up. These companies are not going to be interested in helping put up the market until then.

"Lowering prices do not solve the situation of inequalities in prices. When prices are lowered to meet lower prices, it only results in the same inequalities continuing except on a lower price level to all. Any individual, group or section willing or forced to sell at 25 cents under the market when oil is $1.00 a barrel will continue to sell 25 cents under the market if it is reduced to 75 cents. If the market is raised to $1.25 then their price would rise to $1.00.

"Neither do lower prices encourage proration. Practically every one will fall in line if there is any evidence of being any advantage in obtaining better prices, but when the reward seems to be a steady, regular reduction in prices, the thought of 'What's the use' begins to work. If these companies keep up the game and continue to play as they are doing, proration will probably bust and the Sinclair will load up on 20 cent oil. With one of the majors on a rampage the situation does not look promising. Are the other majors going to let the Sinclair out-general them?

"Why has there not been any material change in the price of gasoline? Gasoline prices never have been according to oil or Hoyle. Here's this last price of 40 cents a barrel on crude oil. Looked like everybody forgot to cut the price of gasoline, then the Humble remembered about it and made a cut of one cent. Cut the price another 50 cents for crude and one cent on gasoline, we would have a situation of crude being worth nothing with gasoline worth 15 cents a gallon, or $6.30 a barrel in the filling stations. A profit in all operations except producing. That is not impossible and may not be improbable. When the price making buyers can do as they please as buyers, they can do as they please as sellers.

"What can be done about it? Curtailing output of crude and gasoline will not solve the problem. Neither will governors' committees, or what not. The foundation and cornerstone for the solution of this situation is $1.00 a barrel tariff. A tariff will equalize the cost of crude. When all buyers are getting their supplies from the same sources and at the same cost, then production will be allowed a profit and not until then. You American producers owe it to yourselves and to every other producer to put up some effort and money to help the Independent Petroleum Association of America in its fight for a tariff.

"The oil business is a cut-throat game. The majors all have knives, with importers having the longest and sharpest; while we producers have nothing much but throats. A tariff alone will not be a 'cure all.' We will have to keep on fighting to get a share in the profits between the cost of crude and the selling price of gasoline."

MARRS MCLEAN,

Beaumont, Texas.

Mr. McLean's comment is a more forceful expression of what has been said before about this situation. It tends to answer why, except that laying the blame all upon the manipulations and greed of the larger units in the industry should be done with this in mind: many annual reports are showing most unfavorably, last year's big dividends of the Standard group notwithstanding. And apparently Sinclair's strong cash position and Prairie's difficulties are the result of the Rockefeller influence putting them definitely on the side of the independents.

"YOU know WHY as well as anybody, but you do not want to be responsible for telling it, and if you can get some other fellow to tell it, you will be on the outside, so the big companies will blame the other fellow.

"It is old history; the same thing over and over again ever since I saw the first oil field in Texas. The starting of 10 cent per barrel oil was when the Lucas gusher came in on Spindletop on the tenth day of January, 1901, on that date or near it, as I can remember.

"The Red River field came in flush and production was put down in price (note that it did not 'fall') to 35 cents per barrel. Urania, Louisiana, came in and sold at a price of $1.50 then was put down to six bits. It is not the supply and demand, it is the will of the master hands in the business, and the worse they are 'bucked' the worse it will be on the independent producers without refinery accommodations for their crude. The master hand is the 'whip hand' or the fellows that make a fellow step when they crack the whip, but it takes a long time for some to see it, and they bump their heads against a rock wall when they oppose the will of the mighty. I have worked at every angle of the production end in the different fields in Louisiana, and never took a dollar of wages from any company, and I have no interest in writing this except to call your bluff. The best friends I ever had were some of the large oil companies—the daddy companies. I like 'em, they pay up good, and the right kind never went broke. Ask them why, and if they said a thing bordering on facts they would say because we can. Their system is a good one, and why not? they have the money and the smartest men in the world with them. Their stock is a good investment, and when the dividends come, nobody says 'WHY'—they all know why.

"You are talking about the low price of oil now; and it will go lower, possibly back to 10 cents per barrel. Low priced crude, and high priced refined products make money for the refineries, and all the large companies have refineries, the independent producers are only the 'lambs being fleeced;' they may get a little chilly, but the big companies will let them live

somehow if they act right, and do not make too much mouth about it.

"That prorating proposition is all wrong—the little good it does, only is visible with a microscope, and the wrong it does is too big a subject to write about. There is not a chance in the world for an independent producer to make good when he gets a gusher, when he is weighted down with prorating laws, and severance taxes.

"Let 'em run wide open and get the gold money while getting is good and let the blessing of God fall on the getter of a gusher, and the bigger the better. When a man gets a gusher it might be the first one he ever had in his life and he may have spent many thousands in losses on other drilling propositions before he got the gusher, and then to have some disinterested fellow to tell him that he has to prorate his production is a drawback too enormous to ever overcome. Turn the operators loose, and let them pop wide open. The luckiest fellows will get rich before the price is put down, and before the big interests can get their heads together and caucus about putting the price down.

"The way the oil business is today is a slow game; all the life is ebbing out of it on account of the prorating laws and severance taxes sapping and retarding the usual activity that accompanies a strike.

"All that, and more, has a bearing on the 'WHY.'"

OSCAR SHANKS,

Independent Operator, Pineville, Louisiana.

At least we are offering the vehicle for other people's answers to Why? and if Mr. Shanks will read the varied answers we are getting from "the other fellow" he will agree that if we do know we are far from agreement with a lot of people who are just as confident in their opinions as he is.

"IN commenting in your March 13th issue on my published answer to your question 'WHY?' I note you state that 'THE OIL WEEKLY figures on some of the data presented by Mr. Heywood do not coincide with his. *For instance the recovery of gasoline last year was only 42.2 per cent from an average barrel, excluding natural gasoline used in blending.*'

"I wish to state that the figures used by me in all articles that I have written on the oil subject pertaining to crude oil have been taken from Bureau of Mines statistics.

"Regarding the recovery of gasoline for the year 1930 I quote the following from the Department of Commerce Bureau of Mines annual report, page 2, which states as follows:

"'Despite the decline in crude oil processed the production of motor fuel showed a slight increase—from 439,393,000 barrels in 1929 to 441,534,000 barrels in 1930. This increase resulted from *an increase in the percentage yield of from 44 per cent in 1929 to 47 per cent in 1930.*'

"You will see by this quotation that there is no qualification made, and nothing referred to regarding blending but on the contrary a plain statement of fact that *the recovery from crude oil processed increased from 44 per cent in 1929 to 47 per cent in 1930.*"

W. SCOTT HEYWOOD,

Jennings, Louisiana.

Mr. Scott Heywood quoted correctly the figures published by the United States Bureau of Mines. It was not with an idea of contradicting Mr. Heywood that THE OIL WEEKLY stated the yield of gasoline from crude oil at 42.2 per cent but merely to point out the actual recovery of gasoline from crude. While all gasoline produced last year represented 47 per cent of the total quantity of crude processed by refineries, 46,670,000 barrels of gasoline was derived by extraction from natural gas and used for blending with cracked gasoline. Therefore, the fact remains that the actual yield of gasoline from crude oil averaged 42.2 per cent during 1930.

A reader in Tulsa, who does not wish his name used, makes this comment:

"The answer to your question 'Why' does not need 1500 words—three will do it—natural gas gasoline. Certain facts are self evident. The main products of crude oil are those used in various types of gasoline engines, principally gasoline and motor oil. Refiners can, and to a certain extent are regulating their output to the requirements of the trade. But a small surplus, whether wheat, apartments, used cars or gasoline or any other commodity, determines the price.

"Hundreds of large and small natural gasoline plants are daily turning out gasoline. The smaller ones have neither the actual nor financial resources to store their product. The gas comes daily from the wells and daily a surplus of distress gasoline is sold at any price obtainable. This reduces the price of refined gasoline and the refiner cannot pay a normal price for crude. Motor oil, fortunately, can only be made by refining. Did you ever hear of a surplus of motor oil?

No, we have not heard of a surplus of motor oil, but only because it does not seem to concern those who talk most about the oil business. But stocks are increasing and consumption and exports are decreasing. Stocks are up about 2,000,000 barrels from last year, but the motor oil business is one spot of prosperity that we should not disturb—it seems in fairly strong hands.

"I HAD not intended to contribute a reply to the question asked in the March 6th issue of THE OIL WEEKLY, for after all the ecenomic law of supply and demand has been largely responsible for the chaotic condition in the oil industry, however, after reading the letters printed in today's issue, I wish to take exception to some of the theories advanced.

"One letter suggests the forced reduction of gasoline prices to reduce the retail profit. There has been too much of that already. Due to price cutting, violation of marketing ethics, over investment in facilities, et cetera, the profit to the marketer has been wiped out and it is the small independent who has aggravated this condition. I fail to see how they are benefiting themselves by such practices.

"Another statement is made, dramatically accusing the 'Major Companies' of concocting a deliberate scheme to exterminate the 'independent' for the purpose of profiteering on the public. That very theory is inconsistent, for on one hand is the plea for a higher price to benefit the independent and on the other for a lower price to benefit the public. No public has ever been benefited by uneconomic prices and woe to the consumer over a long period if it were not for the 'Major Company.'

"If there is any blame to be placed for the present situation, and I doubt that there should be, then the independent, so-called, should receive it. The big company is prepared to pay as high a price for crude as is paid by his competitors but there cannot be two scales of prices. The reason crude prices have collapsed is largely due to the independent having underbid the posted price in every field where production was sufficient to force the producer to accept the lower price. In the face of such competition the Major Company is forced to bring his cost in line. As a matter of fact, he has been paying a greater price right along and the independent has continually forced prices down. The cheap crude thus obtained by the independent has enabled him to name lower prices for finished products. Such economic forces must be recognized by the Major Company as he cannot expect the public to pay more for his product than for his competitors'.

"Ever increasing production is responsible for the situation and the sooner we forget 'Major' and 'Independent' and recognize that we are all in the oil business and want to make a legitimate profit, the sooner there will be a return to normalcy. With the orderly and scientific methods of production now possible, economic control is practical and necessary. It is nothing more than a recognition of a natural law."

F. P. HAGAMAN,

Petroleum Accountant, Baton Rouge, Louisiana.

It is regretable that what Mr. Hagaman says is so true. Much could be accomplished if there could be an understanding that the "majors" need the "independents" and that the "independents" need the "majors" and that the welfare of the oil industry needs both, and that the public needs both prosperous. Unless some understanding can be reached, it now appears that one or the other will go from the picture; the "independent" from economic force or the "major" from legislative action. In the meantime the prospect is that both will be severely hurt financially. There is too much wrong for either side to be entirely to blame; somewhere there is a middle ground that will bring prosperity to both, continuing the existence of both during the adjustment.

Leigh Speaks Before Houston Geology Society on Russia

Houston.—Addressing the Houston Geological Society at a night meeting March 12 at the University Club here, Roy E. Leigh, associate editor of THE OIL WEEKLY, discussed "A Socialized Oil Industry" (in Russia), stressing his opinion that an inefficient socialized industry manned by unpaid or "slave" labor actually can compete on better than even terms with the most efficient and highly organized industrial units of the capitalist world. The Union of Socialist Soviet Republics was among the countries visited by Mr. Leigh on his recent trip through European and Asiatic oil regions.

The oil industry was named by Mr. Leigh as the chief foundation upon which the communist state has been built. "Oil," he said, "was the only marketable asset which the Bolsheviki had in the beginning, and oil has practically financed the great communist experiment. Oil has also largely financed the Five Year Plan, the most comprehensive politico-economic program ever advanced in the history of mankind, by which one of the most backward agricultural states is intended to be transformed into one of the most advanced industrial nations in the world. In the carrying out of the Five Year Plan, Russian oil production has been doubled and re-doubled, and will be doubled again before the end of the five-year period, that is, by 1933."

Commission to Study Crude Foreign Production Costs

Washington, D. C.—Institution of an investigation, under the House resolution of Representative Garber of Oklahoma, of the differences in the costs of production, in this country and abroad, of crude petroleum, fuel oil, gasoline and lubricating oils, was announced by the tariff commission March 11.

Under the Garber resolution, the production cost differences are to be found between this country and foreign countries from which there was exported directly or indirectly to the United States during the period from January 1, 1929, to December 31, 1930, inclusive, more than 2,000,000 barrels in the aggregate of crude petroleum, fuel oil, gasoline and lubricating oils. The report of the tariff commission is to be made directly to the House not later than the next regular session of congress.

In a recent investigation conducted by the tariff commission under a provision of the 1930 tariff act, it was found that there is a differential between the costs of domestic Mid-Continent crude oil and Venezuelan crude oil delivered at the principal markets on the Atlantic Coast of $1.19 per barrel in favor of the foreign product.

The Garber resolution was the only measure approved by congress last session to appease the demands of the independent producers of oil in this country, who asked for at least a partial embargo or tariff on all imports of refined and crude petroleum products entering the United States. The independent producers claimed that imports of cheap foreign oil, coming chiefly from Venezuela, Colombia and Mexico, have flooded domestic markets and had resulted in the "very depressed conditions existing in the domestic petroleum industry."

Bills introduced in both houses of congress last session for the purpose of granting their relief asked by the independent producers were shelved by the steering committee in the senate and the ways and means committee in the house, because of the alleged fear of the administration of reopening the tariff law and the insistence of Eastern representatives that a tariff on oil would increase the costs to industries that depended on the foreign product for fuel and power.

In a statement expressing his approval that the house had passed the resolution directing the tariff commission investigation, Russel Brown, secretary of the Governors' Oil Relief Conference, said the independent producers would welcome the investigation. He promised that "every gasoline user in the nation would be startled by the revelations which would be made by the investigation of gasoline costs, both foreign and American."

Tulsa A. P. I. Division of Production Meets March 2

Tulsa.—The spring meeting of the Mid-Continent District of the American Petroleum Institute Division of Production will be held at the Tulsa Club, March 27, 1931. According to R. W. Bond, chairman of the district, the one-day meeting will be devoted principally to special papers and discussions on various economic aspects of oil production.

The morning session will be given over to the presentation of two papers: "Legal Aspects of Oil and Gas Production," by James A. Veasey, Carter Oil Company, and "Economic Aspects of Oil and Gas Production," by H. M. Stalcup, vice-president of Skelly Oil Company. A luncheon at the club will follow the morning session.

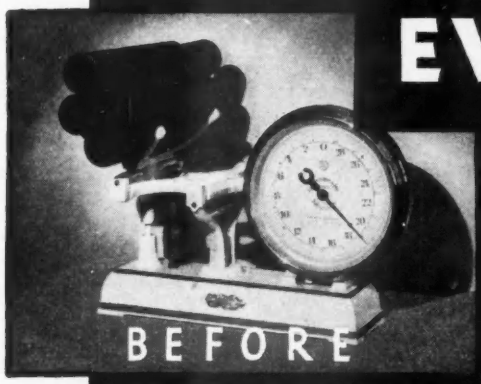
The afternoon session will convene at 1:30 p.m. for the election of officers for the district and a district advisory committee following a report by C. D. Watson, chairman of the nominating committee. Two papers will be presented during the afternoon session: "Plant for Better Utilization of Gas Energy in the Production of Oil," by J. R. McWilliams, production engineer of Skelly Oil Company, and "Unit Operation," by R. F. McArthur, vice-president of Barnsdall Corporation.

Officers of the district are: R. W. Bond, chairman; R. R. Hawkins, vice-chairman; and E. L. Bell, secretary.

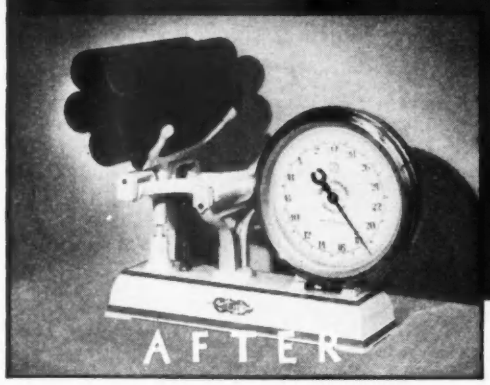
Cities Service Buys Pipe for East Texas-Shreveport Line

Shreveport.—Details which were holding up the formal transfer of the properties of Louisiana Oil Refining Corporation to Cities Service for the latter's subsidiary, Arkansas Natural Gas Corporation having been satisfactorily ironed out and formal transfer being imminent, Arkansas Fuel Oil Company, the oil producing subsidiary of Arkansas Natural, has placed an order for 349,000 feet of 8⅝-inch O.D. pipe, Republic Electric weld, with a carbon content of 15 to 25 per cent, weighing 21.31 pounds per foot, for the oil pipe line to be laid from the Gregg County, East

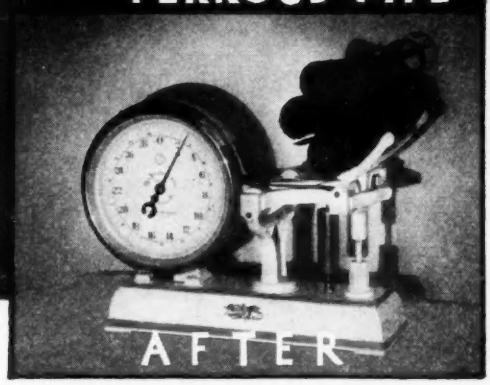
"WEIGHING THE EVIDENCE"



TONCAN



FIBROUS FERROUS PIPE



In the oil producing and refining industries, and particularly where heavy sulphur bearing oils are a problem, Toncan Iron Pipe has made for itself an enviable reputation, giving many times the useful life of other ferrous pipe in the same service.

Confirmation of the longer life expectancy of Toncan Iron where acid corrosives are present is within the reach of everyone interested. While it is true that results of accelerated tests indicate only resistance to solution, the behavior of Toncan in comparison with that of other ferrous materials, is such that its longer service life may readily be surmised.

Toncan Iron is an alloy of refined iron, copper and molybdenum. Its resistance to corrosion is uniform throughout the metal. It cuts, bends, threads, flanges and Van Stones easily due to its homogeneous character.

Tell us where you are constantly replacing pipe due to failure from corrosion. Perhaps Toncan Pipe may prove the solution to this problem.

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Texas, field to Louisiana Oil Refining Corporation's refineries at Shreveport. The pipe will be plain end beveled for welding in 40-foot lengths.

Actual construction of the line will start between March 25 and April 1, and the line will be completed within 45 days, according to present plans of the company. A pumping station will be built at the Gregg County end of the line. Bids were called for March 19.

A feature of the project not heretofore announced is that connections will be made at Shreveport with other lines making oil from the line available to trunk lines going to South Texas and Arkansas. A hook-up with Magnolia Petroleum Company's trunk or The Texas Company's trunk to South Texas will be made. Louisiana Oil Refining Corporation's Shreveport-El Dorado line will make the oil available to Arkansas refineries. What is not used at the Louisiana's two local refineries and not sent into Arkansas will be piped to South Texas ports and shipped by boat to Cities Service refineries on the Atlantic seaboard.

Approximately 200 men will be employed on the line.

EAST TEXAS LINE BUILDING DEPENDS ON LEGISLATURE

(Continued from page 21)

East Texas producing area to the Neches River terminus, roughly paralleling the trunk line of Gulf Pipe Line Company which traverses the same general territory, but passing near Beaumont, whereas the Gulf line reaches tidewater via Sour Lake station.

Aside from the trunk line there will be initially about 30 miles of gathering lines, embracing the length of the Rusk-Gregg County fields and including probably an eight-inch connection from Kilgore station to the Lathrop pool.

Field Storage

In connection with the pipe line, Gulf Coast Pipe Line Company originally contemplated building approximately 3,000,000 barrels of steel tankage, including 15 tanks of 80,000 barrels capacity each in the East Texas oil producing area and a tank farm of possibly 2,000,000 barrels capacity at the Neches River. But consummation of the Yount-Lee Oil Company purchase in East Texas, and the contemplated use of that company's docks may result in revision of Moody-Seagraves-Morgan plans to eliminate provisions for tank farms and loading docks. Definite plans in this connection are expected to be completed by the latter part of this week.

Definite action is expected to be taken also within the next week by the state legislature at Austin regarding the pending pipe line legislation which stands in the way of actual construction work on the proposed crude carrier. Officials of Moody-Seagraves-Morgan Company have stated that they will not build the proposed line if the adverse legislation is passed.

The legislation, which has been pending for several weeks, proposes, among other things, that the Texas Railroad Commission be empowered to fix pipe line tariffs in the state, returns to be limited to 10 per cent of the investment in such lines. Under terms of the bill it would become the duty of the railroad commission to value existing pipe lines, and on future construction actual costs would be determined. From valuations thus secured, rates which would return 10 per cent on actual investment would be fixed, and out of the 10 per cent must come operating expenses and overhead. Rates so fixed might be changed from time to time following hearings, and lines would be permitted to establish tariffs lower than set by their valuation to meet competition.

Gulf Coast Oil Company, producing subsidiary of Moody-Seagraves-Morgan Company, has about 600 acres of leases within proven or virtually proven territory in the new East Texas fields, much of it located between the producing wells of the Kilgore pool and the Lathrop area. The company is drilling six wells.

Headquarters at Houston

Headquarters of Gulf Coast Pipe Line Company were being transferred from San Antonio to Houston early this week, although the Moody-Seagraves-Morgan Company will continue to maintain offices in San Antonio as well as in Houston. Present activities of Gulf Coast Pipe Line Company are limited largely to handling of oil shipments by tank cars out of the White Point and Saxet fields near Corpus Christi, the company having several months ago disposed of a looped pipe line from Refugio to Aransas Pass. The company will begin handling Joiner field (East Texas) crude in tank cars shortly, however, expecting to complete construction of a six-inch pipe line from the field to its 50-car capacity loading rack on the I.-G.N. Railroad five miles southeast of Overton some time this week.

Aside of having built and operated until recently the pipe line system which was Refugio field's only pipe line outlet for a considerable period, the Moody-Seagraves-Morgan interests have been prominently identified in the past in exploration work and oil and gas production and transportation at Refugio, Pettus, and other areas in South Texas.

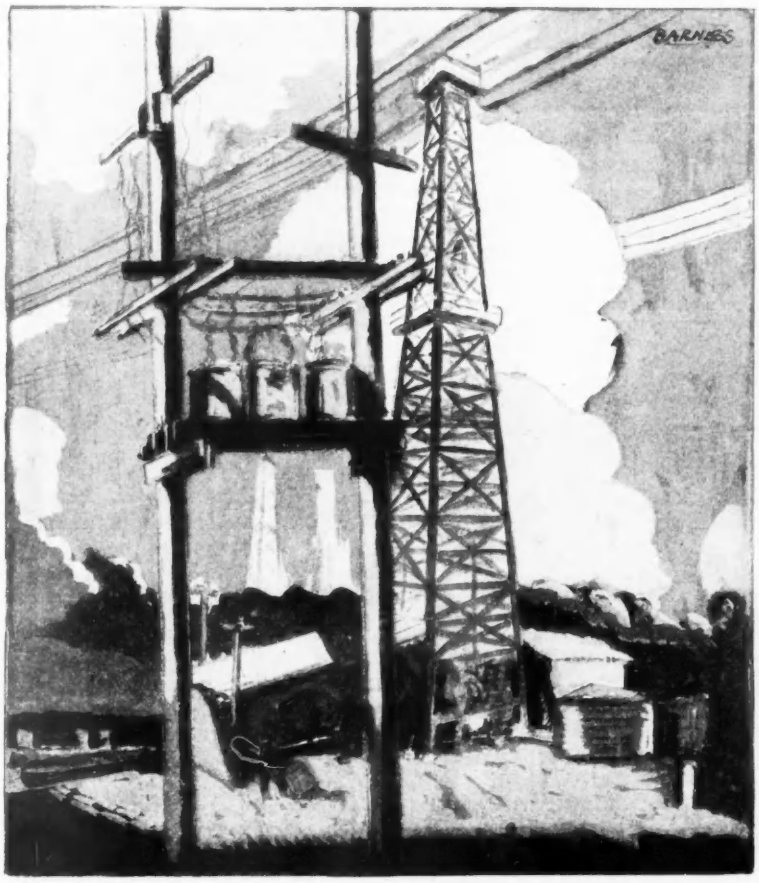
Fredell Construction Company, which has the conditional contract for construction of the proposed East Texas line, is being represented in Houston by D. B. Cogswell, vice president of the company, with headquarters at the offices of the Moody-Seagraves-Morgan Company, Esperson Building.

Fredell Construction Company recently built over 300 miles of 24-inch pipe line as part of the large natural gas piping project of Missouri Valley Pipe Line Company from Texas Panhandle and Stevens County, Kansas, fields through Iowa and to Omaha, Nebraska. The Moody-Seagraves interests have gas producing properties in Stevens County, Kansas, which furnish part of the supply for that system.

Competitive Development of Longview Field is Assured

Longview, Texas.—Competitive development of the original block of leases surrounding the discovery well of the Longview field, Gregg County, is to occur as result of Yount-Lee Oil Company, Beaumont, having acquired the checkerboard spread of leases and undivided half interest in the 96-acre site bearing the F. K. Lathrop discovery producer from a group of Fort Worth independent operators for a total consideration of $3,270,000. Arkansas Fuel Oil Company, co-discoverer and owner of a similar interest

(Continued on page 59)



OUT WHERE THE WELL COMES IN

WHEN a location is made nowadays, electric power is thought of as water was in the past.

For drilling or pumping, electric power has met the test, and the organization of the Gulf States Utilities Company is trained to the requirements of the petroleum industry.

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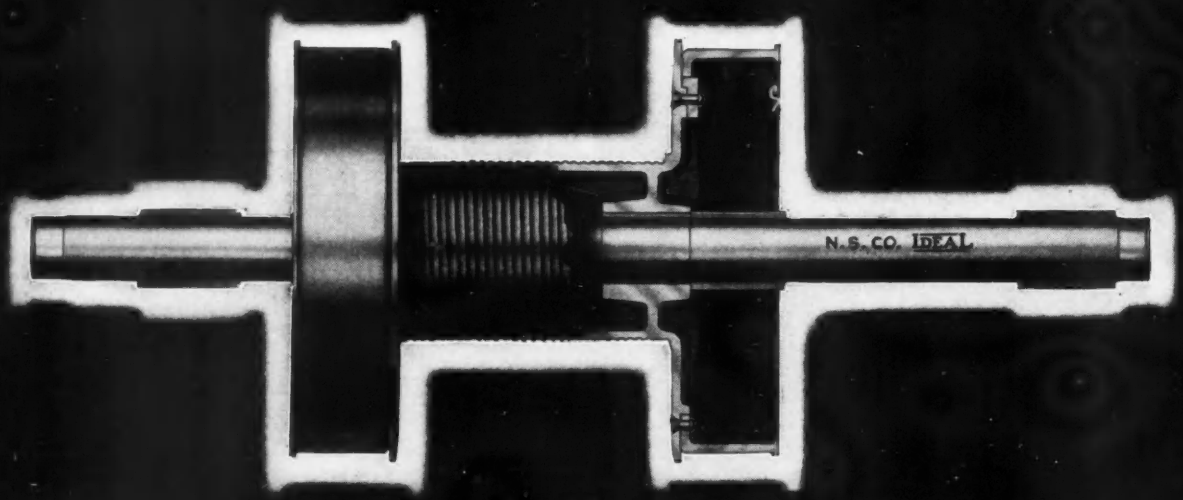

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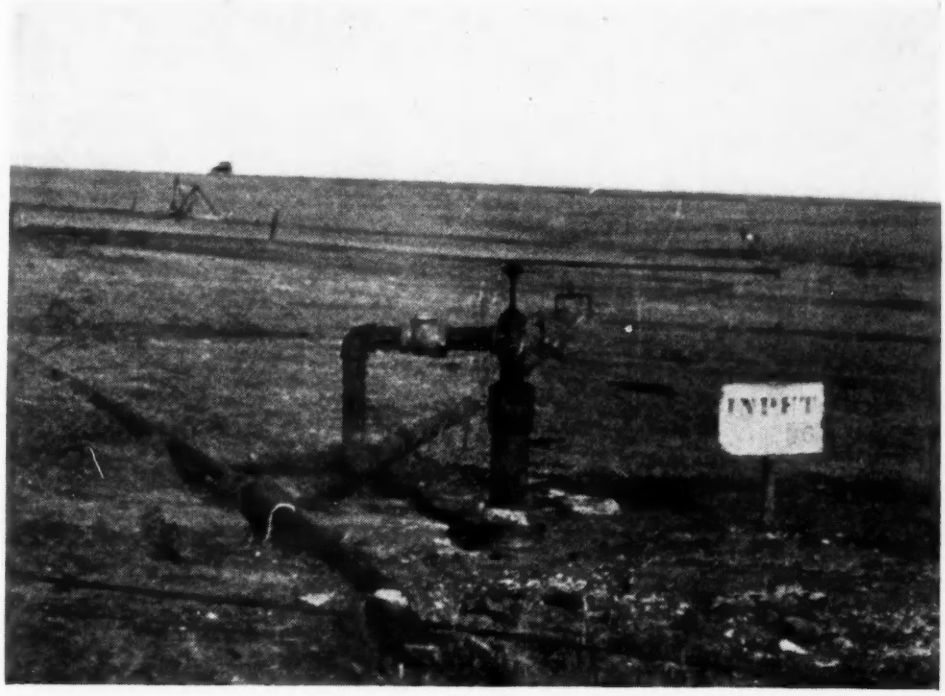


Input well in the Petrolia Repressuring Project, showing swing connection to take strain of crawling line from input head connection

Repressuring Profitable At Petrolia

By J. C. ALBRIGHT

SOME time in the year 1902, the Petrolia shallow field was discovered by a Mr. L. Lockridge when drilling a well on his farm prospecting for water. At a depth of about 150 feet he encountered an oil bearing sand, probably dashing his hopes and disgusting the cattlemen of that region. The well created enough interest to justify the investigation by men who were more interested in oil, than they were in the production of water. Upon further drilling, enough oil was discovered to justify a rather intensive drilling campaign. The result of which was the Petrolia oil boom. Numerous town lot wells were drilled, as well as those on small acreage holdings. In all, between 400 and 500 wells were drilled from which were produced thousands of barrels of oil. Most of the wells were drilled in competitive time, consequently no particular attention was paid to the manner in which the casing was seated.

During the following years vacuum was applied by beam pumps in an effort to increase the production of the wells. No existing records are available to indicate whether this was profitable or otherwise. It was evidently considered so, because this method was continued more or less consistently through several years. In the last decade, a large number of the wells have gone dead, or were found to be unprofitable producers and abandoned. Some of the abandoned wells were pulled, but the greater number were left with the casing in the hole. None of the wells was mudded when the pipe was pulled, consequently the field passed into a state of partial decay.

In the latter part of the summer of 1925, Walter K. Campbell and Albert Crenshaw, both of Wichita Falls, surveyed the field, and found only 250 of the original wells producing, and that the total production was less than 100 barrels of oil daily. From the result of this survey, these men came to the conclusion that if the producing sands were relieved of the existing vacuum, and a gas pressure applied, there could be produced sufficient oil to justify the expense of the change. Previous to this time, no repressuring project of any importance had been attempted. To obtain the full benefit of the contemplated project, it was necessary that these men control the area covered by the old drilling campaign. Long time leases were written, but a number of the tracts were purchasd outright. When this had been accomplished, the task of reconditioning the leases was begun. Old powers were pulled out and replaced

with new ones, some of the better installations were repaired, wells plugged, and key wells selected to receive the injected gas.

Admirably Situated

The Petrolia field is admirably situated for a repressuring project, as the sands in the 150-foot, the 250, the 350, the 630 and the 720 producing horizons are fairly continuous over the area of about 800 acres included in this project. Dry natural gas is available in any quantities and at any required pressure through the compression station of Lone Star Gas Company, which is located in the extreme south end of the field. A contract was entered into between Campbell & Crenshaw and Lone Star Gas Company, whereby the latter was to furnish the necessary amount of dry gas to saturate the sand, and continue the repressuring and gas drive. Lone Star Gas Company was to furnish the gas used in the input wells, and to receive the casinghead gas produced with the oil after the sand had become saturated with gas. Campbell & Crenshaw were to pay Lone Star Gas Company at a low commercial rate for the difference in the input and the output volume.

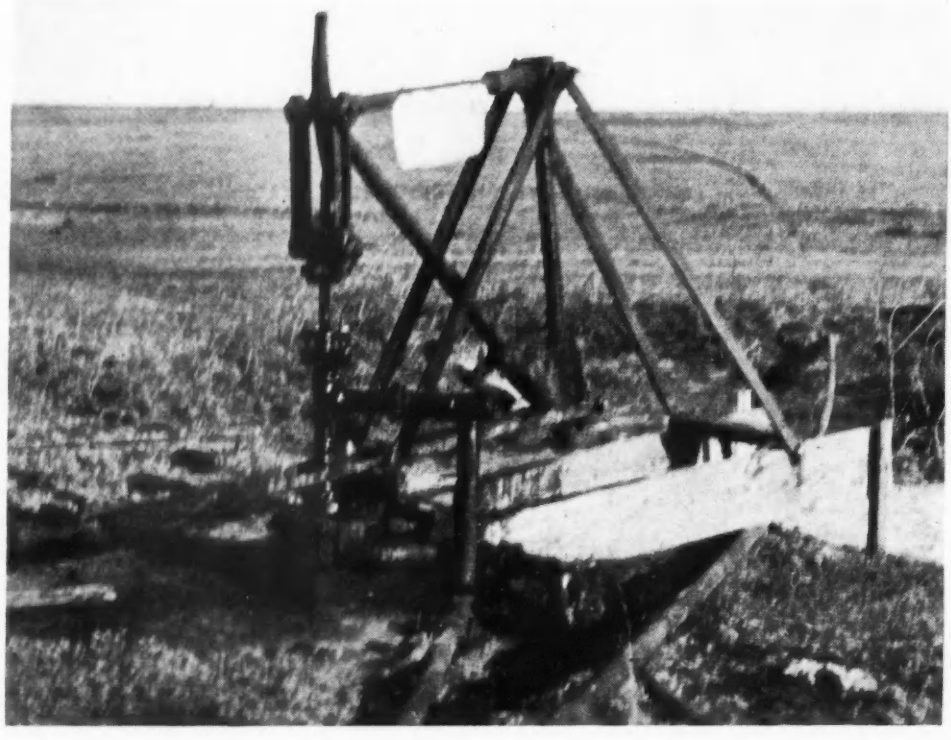
In the early summer of 1929, the property was purchased by Saxet Oil Company of Houston, which has continued the repressuring, adding new equipment, selecting new input wells and rearranging the field injection and return gas lines. In rearranging the field, this company has reduced the amount of pipe in the two systems from about 40 miles to less than 30 miles. At the present time there are 333 producers with 54 input wells on the properties, using an average of 1,760,000 cubic feet of input gas daily, with an output returnable to Lone Star Gas Company of 1,300,000 cubic feet. The difference of 460,000 cubic feet is used in the sand, running 10 pumping engines, serving 10 lease houses, for heat in 10 oil treating heaters, office, warehouse, blacksmith shop and in the welding shed.

Old Wells Salvaged

The salvage of old wells has been continued where they have casing in condition to justify their use. If the pipe is bad, due in many instances to having been ripped to allow the upper sand to produce in the same hole with a lower one, it is either pulled or plugged. Many of the old wells which were abandoned in the years past, and had the casing pulled, but were not mudded in, have given trouble by allowing the gas to escape from the sand into which it was injected. These leaks have been located, almost entirely during heavy rain storms, by the superintendent in charge sending his men over the field looking for gas bubbles breaking through the water saturated ground. When these old holes that leak gas to the surface have been located, they are marked and a spudder erected. The old hole is cleaned to a depth sufficient to locate solid walls in the red shales. When this depth is reached, several sacks of cement are mixed and poured into the open hole and allowed to remain until set, after which time the hole is completely filled with a properly mixed mud, which effectually prevents any loss of gas to the atmosphere.

The laterals from the main injection line have all been relaid with new pipe, new connections have been made to the input wells. No old or salvaged pipe is used in either the injection or return gas lines. The well selected to receive the input gas is prepared after a careful examination, by running an improvised packer a joint or two down into the well, connected to a two-inch string of pipe. The point where it is located is accurately measured and recorded. On top of this packer several sacks of cement are poured, and after it has hardened, the casing is almost filled with a prepared mud solution. Burlap bags are rammed down into the mud, and on top of which is poured sufficient cement to fill the pipe, forming a solid connection between the tubing and the casing. After this top layer of cement has hardened, a ring is cut from heavy flat steel, with a hole large enough to slip over the tubing. This plate is placed flush with the top of the pipe and welded to both the tubing and the casing.

The well is now ready for input connections. On the top of the tubing is placed a tee running with a plug and small connection to test input pressure. From the side of the



Typical pumping jack and casing head connections in Petrolia repressuring project. Gate on line from casing head to control back pressure and output volume

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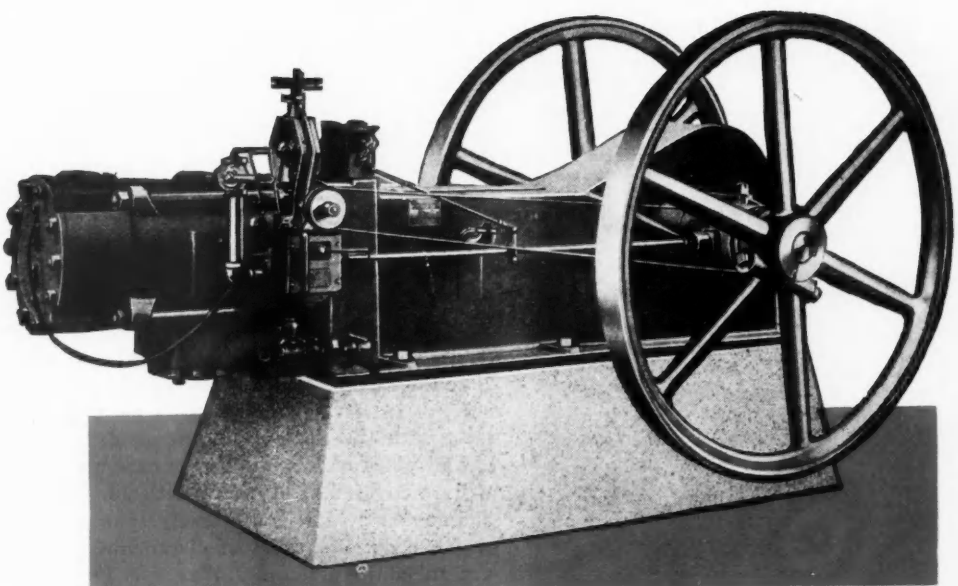

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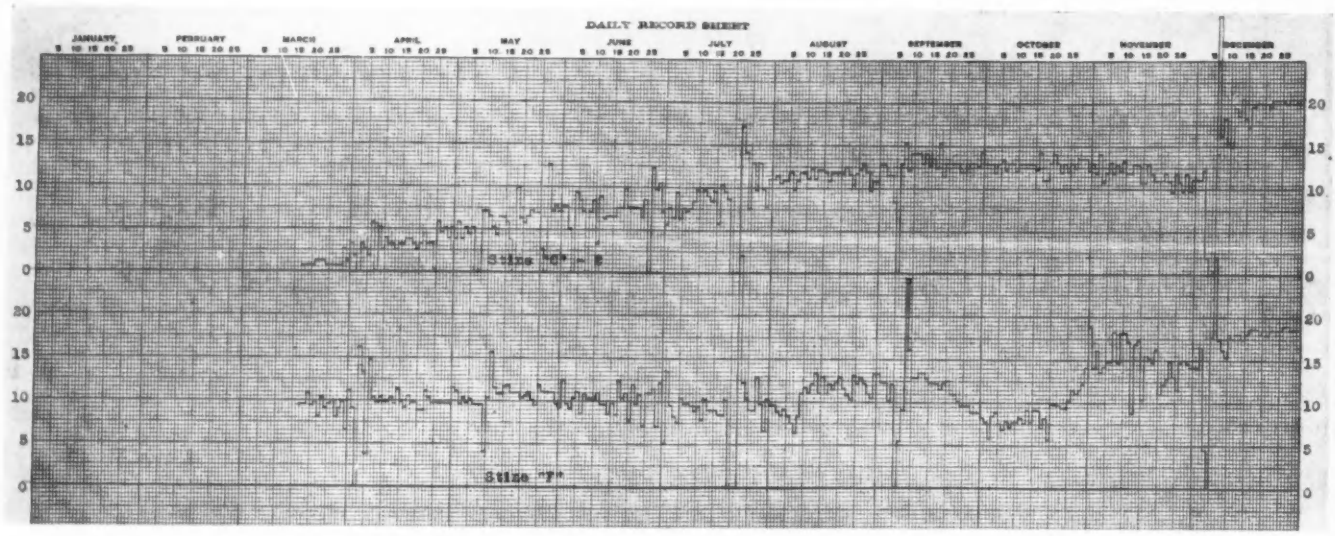


Graphical illustration of the effects of repressuring on two leases. Stine "C" 2 with 15 producing wells and four inputs started producing at the rate of 1½ barrels per day March 17, 1930, and after 9½ months is producing 22 barrels with constant volume input. Stine "F" with 17 producing wells and four inputs increased in the same period from nine barrels to 17 barrels

tee a nipple extends into a swing check to prevent a back flow in case of accidental line breakage. The connections are continued from the check and down making a swing, thence out to the lateral. In this line from the input well head to the lateral is a Foxboro orifice flange, with connections to accommodate the tieing in of a common manometer. Between the flange and the field lateral, there is placed a gate valve to regulate the input volume. The gas entering the input well is checked approximately at 15-day intervals.

Where the gas leaves the high pressure line of the Lone Star Gas Company, to the Petrolia repressuring project. Crane four-inch 1000-pound W.P. Gate valve on main line

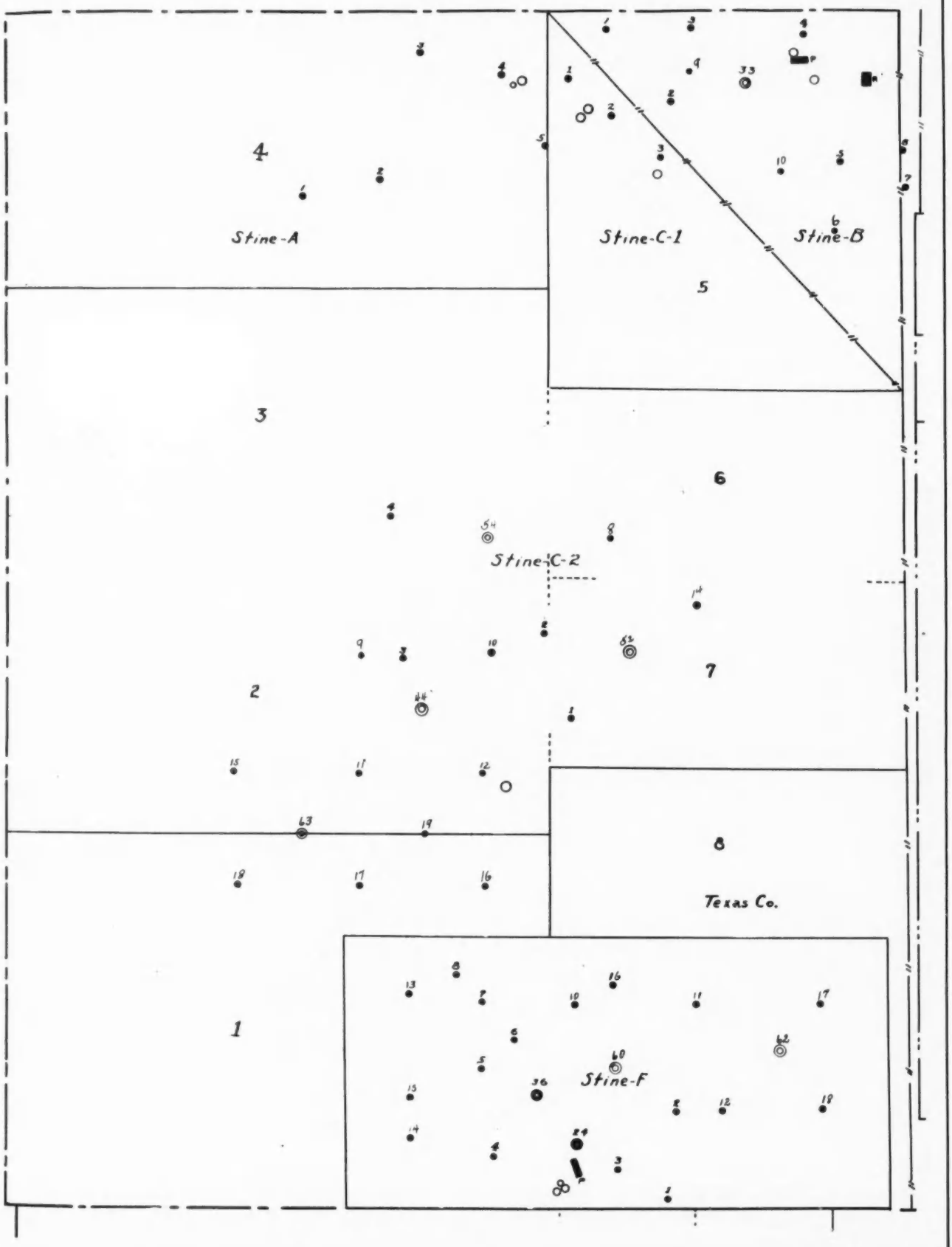
After experimenting for several months with a varying amount of input gas per well, the operators decided, from the results which had been obtained, that the amount of input gas should average about 31,000 cubic feet of gas per day per input well. These wells are not spaced in a geometric pattern over the various leases, but have been selected according to condition and location which will bring one input well into service for an average of six producers. The pressure on the line from the main line of Lone Star Gas Company is carried at an average of 85 pounds through the leases, and directed into the input wells at a pressure sufficient to enable them to take their required amount of gas.

Prepared for Production

These 333 producing wells have all been prepared for production under this gas drive method. They have all been tested for their water production, and in the event they do produce water, the tubing is lowered into the hole a sufficient amount to enable them to be pumped from a point approximating the middle of the producing sand. Those wells that do not produce water in any appreciable amount are arranged so that they are pumped off at a point level with the top part of the sand. That is, the tubing is either raised or lowered as the case may be so that the sand will be covered at all times with oil. Those wells that have a tendency to gas more freely than others, or those wells which show the effect of channeling from the input wells, are tubed in a manner that will permit the pumping off period to approximate a point several feet above the sand.

In the preparation of these producing wells, the casing heads have about all been changed from the common kind to a head that is cast and machined to order, from specifications furnished by Saxet Oil Company, and under the direction of J. C. V. T. Christensen, Wichita Falls Foundry & Machine Company. These are made with ears on the body to accommodate the attaching thereto of the common "grasshopper jacks." The main body of the head has two two-inch holes for pipe connections, with the usual four set screws. The sand cap is cast with an elongated neck

Map Showing Location of Wells, Input and Pumping, and Pumping Equipment on a Section of the Petrolia Field



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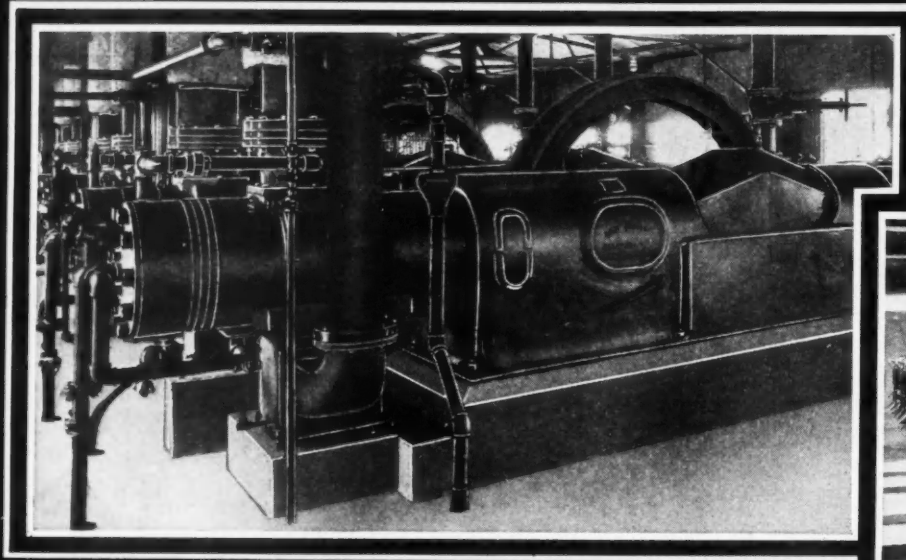
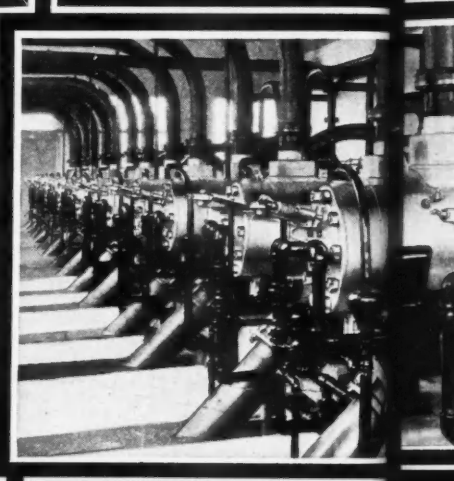
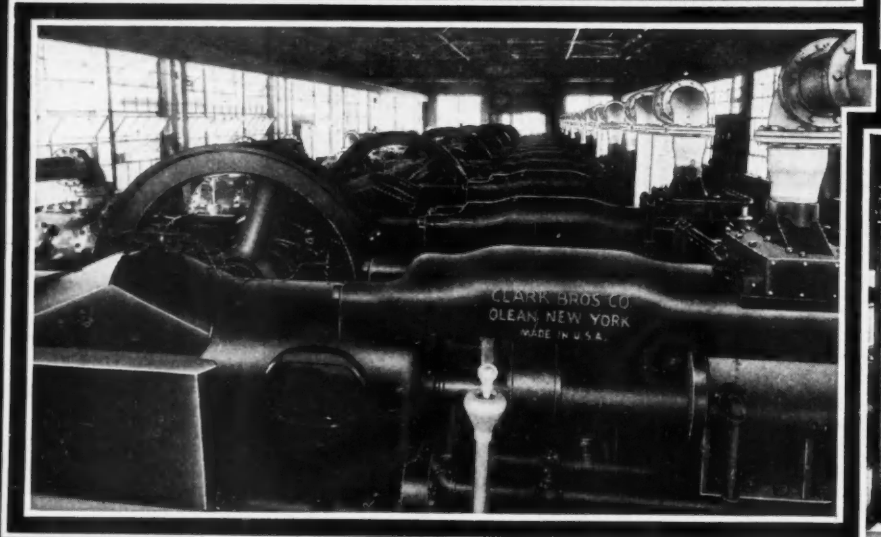
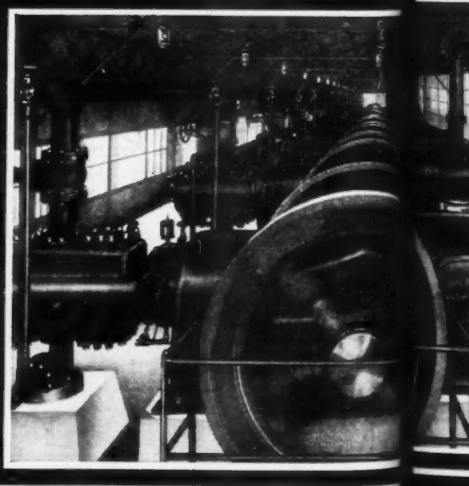


(Left) 200 H. P. Super 2s, with new inverted exhaust, at a Kansas refinery.





(Above) 400 H. P. Double Acting CLARK Super 2s in a Louisiana Vapor Recovery Plant.



(Right) 100 H. P. Clarks at Rising Star, Texas

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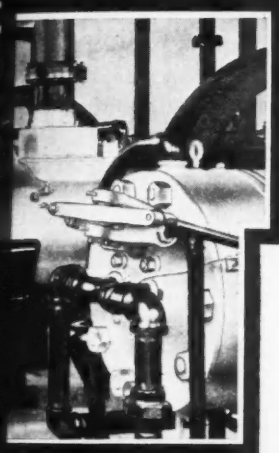
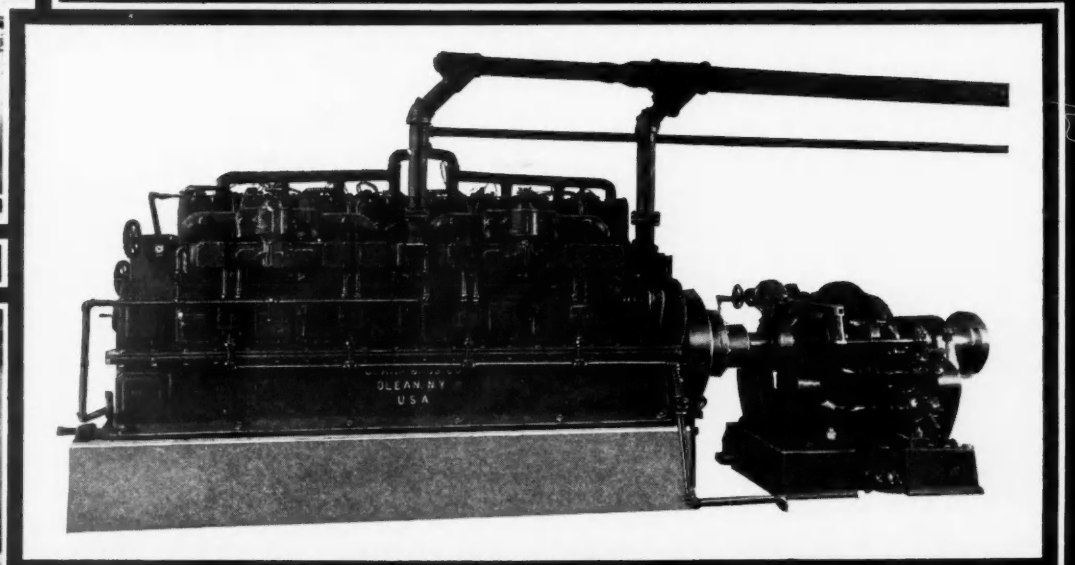
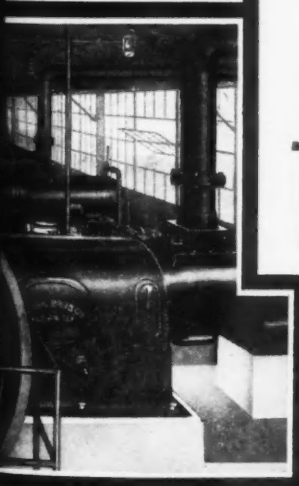


(Left) 200 H. P. CLARK Super 2s in plant at Port Arthur, Texas





(Above) CLARK 8-Cylinder Vertical Gas Engine—an ideal unit for hot oil pump drive or for driving gasoline line pump.

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which is countersunk deep enough to receive a thick rubber gasket, on top of which is placed the tubing ring. When assembled on the casing, with a heavy rubber gasket between the sand cap and the body of the head, and with the weight of the tubing resting upon it, there is no chance for the casing head gas to escape to the atmosphere. These heads are cast from common gray iron, and cost but very little more than the ordinary casing head.

One of the most outstanding examples of the results which have been obtained from repressuring in this field, is Saxet Oil Company's Stine "C" 2 Lease. Those who have been through this field may possibly remember this lease on the right side of the road about a mile south of the town of Petrolia, on the Henrietta highway. This lease was cleaned of all surface accumulation of rubbish, existing equipment repaired or replaced with usable material. The wells were cleaned out and tested for water and casing leaks. After all this had been done, the lease was put on production, but after some days of pumping, only a barrel to 1½ barrels were produced from 15 wells which were on the jacks. Then after all repressuring connections were made, gas injection was applied March 17, 1930, through four input wells, with the 15 wells pumping. For 10 days no increase in production was gauged in the lease battery. On March 28 the production gained to five barrels. The power has been down 13 times during the year, and almost without exception, the production has made a marked rise after the power was started again. The increase ran up to 12 to 14 barrels through September and October, with a slight decline through November. On December 3, the power was down for three days for repairs until December 6. During the shutdown periods, there was no diminution of the repressuring volume of gas. Upon starting the power this time, an extraordinary gain in production was noted the first day, evidently due to the accumulation of oil in the wells. For 10 days the production has risen from 15 to 21 barrels, and now shows an almost flat curve with the tendency to an upturn. The rapid rise in production after the power was down the three days, seems to have been brought about by the gas pushing the oil toward the output wells bringing the oil level to the top of the sand, creating a situation within the sand which is permitting the producers to obtain a true gas drive.

Production Increased

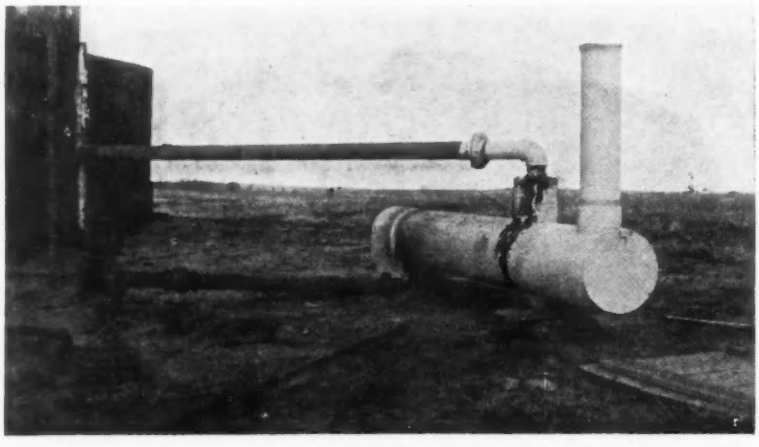
In the period of about 18 months under the operation of these properties by Saxet Oil Company, approximately 10 barrels of new production has been added by drilling wells to replace those found with bad casing seats, corroded pipe, and other conditions in the hole which would justify the plugging of the wells. When a new well is drilled, either for production or for injection purposes, the hole is carried large enough to enable an eight-inch shoe to be seated on the blue shale overlying the sand. Usually 5 3/16 pipe is run, and after the casing is seated, a cement mixture is poured in the hole surrounding the pipe to seal off any leaks which might occur. Enough cement is poured to cover about half of the bottom joint, and the balance of the hole filled with mud. During this 18-month period, about 30 barrels of production have been lost to the operators, by the return of a lease to the original owner who has discontinued the repressuring on his property.

During the time of operating under repressure, there have been 333 producers conditioned with an average of better than 300 barrels net production daily, or .93 barrels per well. This shows an increase of 210 per cent during the five years that repressuring has been applied. Another thing that this method has brought to light. The wells that were drilled years ago on townlot size locations are now producing as much oil per well as those that were drilled on standard locations in the larger tracts. Following is a copy of the report of one day's production.

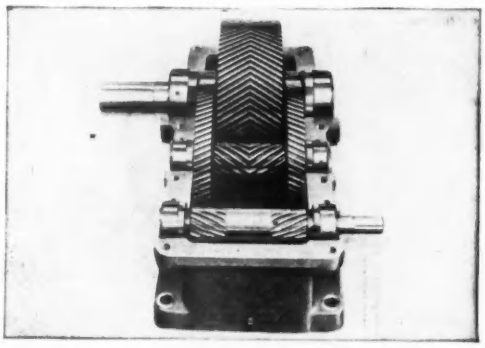
In spite of the net loss of 20 barrels per day owing to the return of the lease to the original owners, the production curve for the entire project shows a steady upward trend.

All of the producing wells are pumped with jacks operated from central powers, 10 being located on the producing property. These powers are all modern band wheel units, driven by gas engines. The rod lines leaving the power houses extend toward the wells, and in most instances, each rod line had a bridle attached to the field end, to which is hooked smaller sized shackle rods, or light wire lines, extending to two, three and sometimes four wells. The production is led to a field storage battery on each property served by the engines. Lead lines coming from the different wells terminate in a common header placed on the ground, where the oil is diverted through heaters, made on the lease of especially constructed shells, about 30 inches in diameter with tubes welded to tube sheets, just like a miniature steam boiler. This piece of equipment, with a fire lighted in the combustion chamber, and the flame directed toward the end of the flues effects a complete separation of oil and water. From these heaters, the oil is directed into gas tight gun barrels, where the water is bled off. Going to the receiving battery, the oil passes into an oil and gas separator, where the gas coming in with the oil is taken into the feeder lines and directed through the field laterals to the main line of the receiving system of Lone Star Gas Company, completing cycle of gas utilization on these properties.

The writer is grateful to Homer Merrill, district production superintendent for Saxet Oil Company, who has shown every courtesy and has given the facts and figures which enabled this article to be written.



Typical equipment in the Petrolia Repressuring Project to accelerate the separation of water from oil. Oil enters the heater at the bottom leaving through the dome. Lead line header in left foreground



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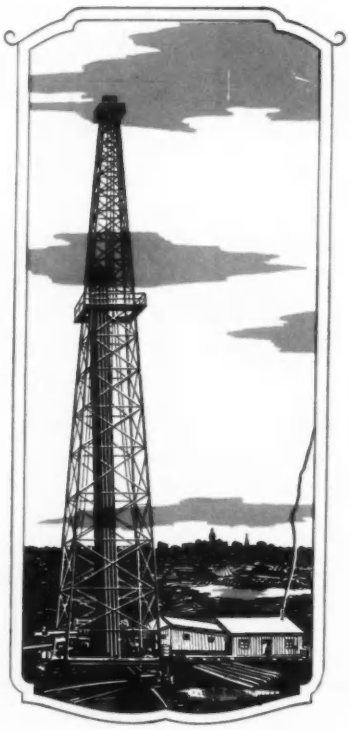

The Lathrop field is 35 miles northeast of Tyler. Kilgore is 26 miles east. Joiner, 28 miles southeast. Boggy Creek is 28 miles southwest. Van is 26 miles northwest. Tyler is at the center of this golden circle, with paved highways and railroads between like the spokes of a wheel.

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Welding Aluminum *In the* Oil Industry

By JOHN J. BOWMAN
Metallurgical division, Aluminum Research Laboratories, New Kensington, Pennsylvania

ALUMINUM has certain characteristics which make it a desirable metal for the oil industry. Its resistance of the corrosive action of high sulfur crudes and their gases, its light weight, high reflectivity and conductivity are the principal advantages which justify its use. Stills, heat exchangers, storage and flow tanks, shipping drums and truck tanks are now made from aluminum alloys.

Much of this equipment is built of standard products—sheet, tubing, castings. The ease with which aluminum can be fabricated, however, permits the use of intricate designs, and the fact that it can be welded easily and satisfactorily gives the designing engineer a much wider range in planning special equipment.

In the fabrication of oil equipment both riveting and welding play an important part. A riveted joint is usually used in connection with the strong aluminum alloys as a welded joint has a strength efficiency of only about 60 to 70 per cent. These alloys depend for their strength on heat treatment and the partial annealing from the heat of welding causes the reduced strengths. When this reduction in strength is not important, however, welding can be and is done. For equipment where gas or water-tight joints are important—especially when such equipment is made from commercial aluminum (2S) or the 1¼ per cent manganese alloy (3S) products—a welded assembly is generally used. Such joints, too, are of somewhat lighter weight than riveted ones.

Welding shell section of heavy gauge aluminum tank

All common types of joints can be made in aluminum but, naturally, certain of these are more easily made than others. For this reason it is common practice to use the straight butt weld instead of the lap weld which the steel arc welder prefers. The designs should be changed, too, so that welds are not made on corners or immediately adjacent to bends. Complicated welds should be avoided if possible and fittings should be kept separated so that the welds do not overlap.

Welding Practice

Nearly all of the plates used by the oil industry are ⅛ inch to ½ inch thick. In preparing the ⅛ inch metal for welding the common parctice is to notch the edges. These notches are made with a cold chisel and are usually 1/16 to ⅛ inch deep and about 3/16 inch apart. For material thicker than ⅛ inch it is advisable to bevel the edges to form a 90° vee. The bevel is not carried entirely through the sheet, but about a ⅛ inch lip is usually left. This lip is then notched as in the lighter sheet. On very heavy (over ½ inch) material it may be found advisable to bevel both sides and use a double vee type of preparation; this type of joint, however, requires welding from both sides. Although the lighter gauges of metal are not commonly used in the oil industry, it might be interesting to note that sheet from 1/16 to ⅛ inch thick is usually notched for welding, while the lighter gauges require no special preparation.

In setting up the work for welding, spacing of any kind is normally avoided. For small or light work it is advisable to have some type of jig to hold the edges in line; for large or heavy material, clamps should be used for this purpose. Long seams should be tack welded at uniform intervals of from about two inches on the lighter work to six inches or eight inches on the heavy plate. All tack welds should be "burned in" well and, when widely separated, should be several inches in length.

Aluminum and its alloys are coated with a film of oxide, which forms as soon as the metal is exposed to air. This formation is especially rapid at high temperatures and unless this film is removed during welding the molten metal will not coalesce. For this reason the flux-method of welding is now almost universally used in welding sheet aluminum. In this method the oxide film is removed from

the weld by a molten flux, the flux, containing oxide, remaining as a surface "slag" when welding is complete.

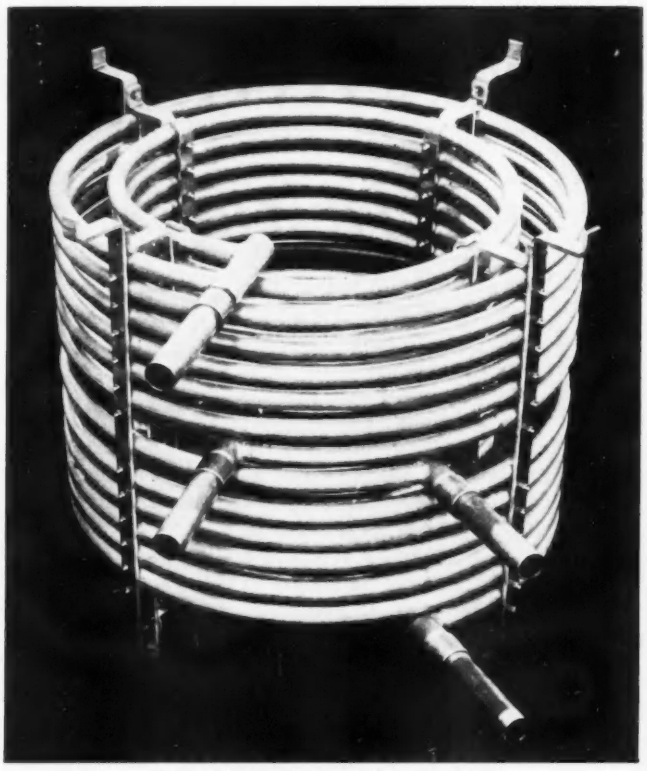
A suitable flux for use in welding aluminum must melt at a temperature slightly less than that of aluminum and must be stable at its melting point. It should not deteriorate with age nor be too deliquescent. In the molten state it must be able to remove the aluminum oxide readily and quickly and this action must be sufficient to take care of all oxide, which may be present. The molten flux, containing the oxide, must have a specific gravity less than that of molten aluminum. This difference should be great enough to cause the flux and oxide to come to the surface of the weld quickly and completely.

Preparing the Flux

In preparing the flux for use it is mixed with water to the consistency of thick cream or paint. This paste is then either painted on the seam or applied to the filler wire; as the latter procedure is better, it will be found a good plan to keep the flux paste in an aluminum, brass, or glass tube. Iron should be avoided as this metal is attacked by the flux with resulting contamination. A tube about 1½ inch in diameter and 15 inches to 18 inches long, plugged at one end, will prove very satisfactory. The flux which clings to the wire when it is dipped into the tube will usually be found sufficient for making the weld.

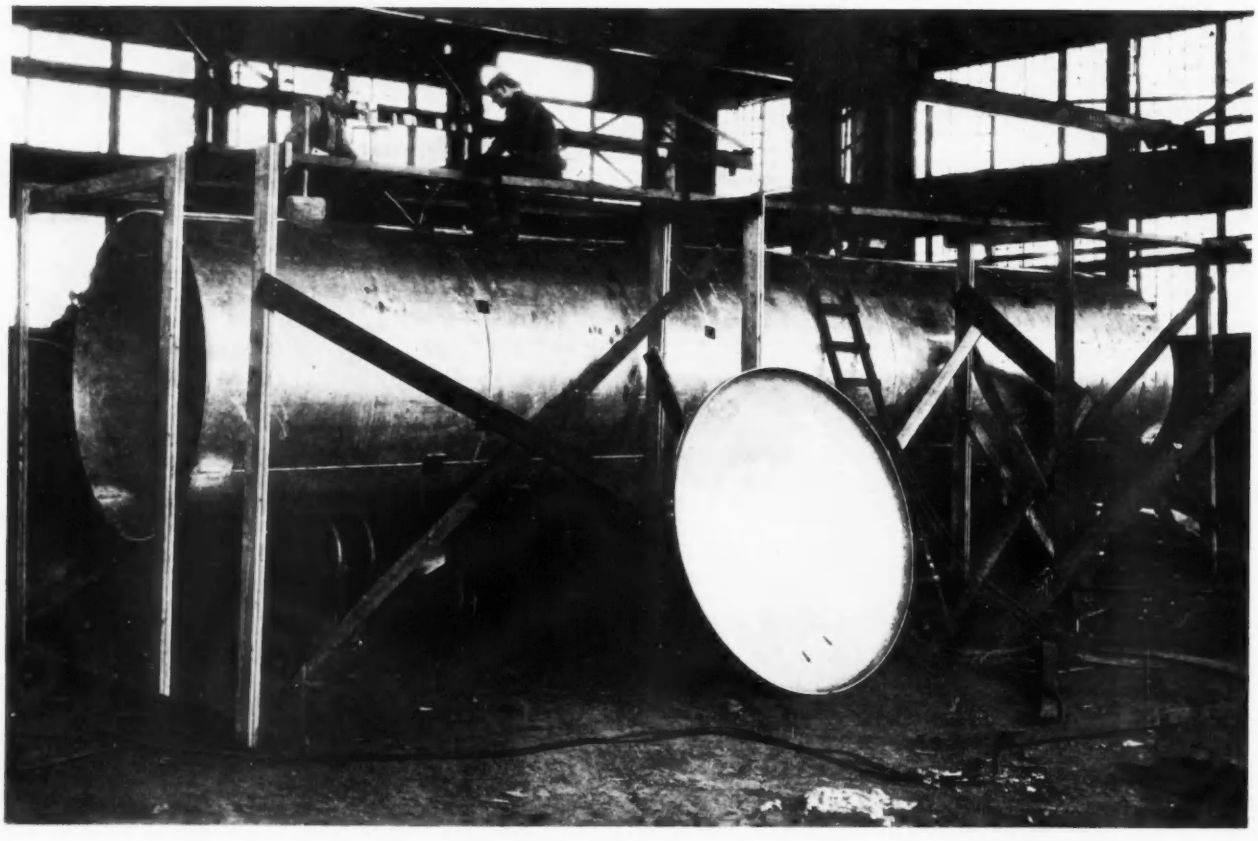
The flux paste should be thoroughly stirred every morning and occasionally during the day. If this is not done the flux will cake in the bottom of the tube and must be discarded. Fresh flux and water may be added to the tube from time to time as the mixture is used. Additional water must be added occasionally to make up evaporation losses.

In torch welding aluminum, both the oxy-hydrogen and the oxy-acetylene flame are used. The former, however, is better when it will supply enough heat, as it produces a cleaner and sounder weld. For material more than ⅜ inch thick, however, the oxy-hydrogen flame will not supply sufficient heat so the oxy-acetylene flame must be used.

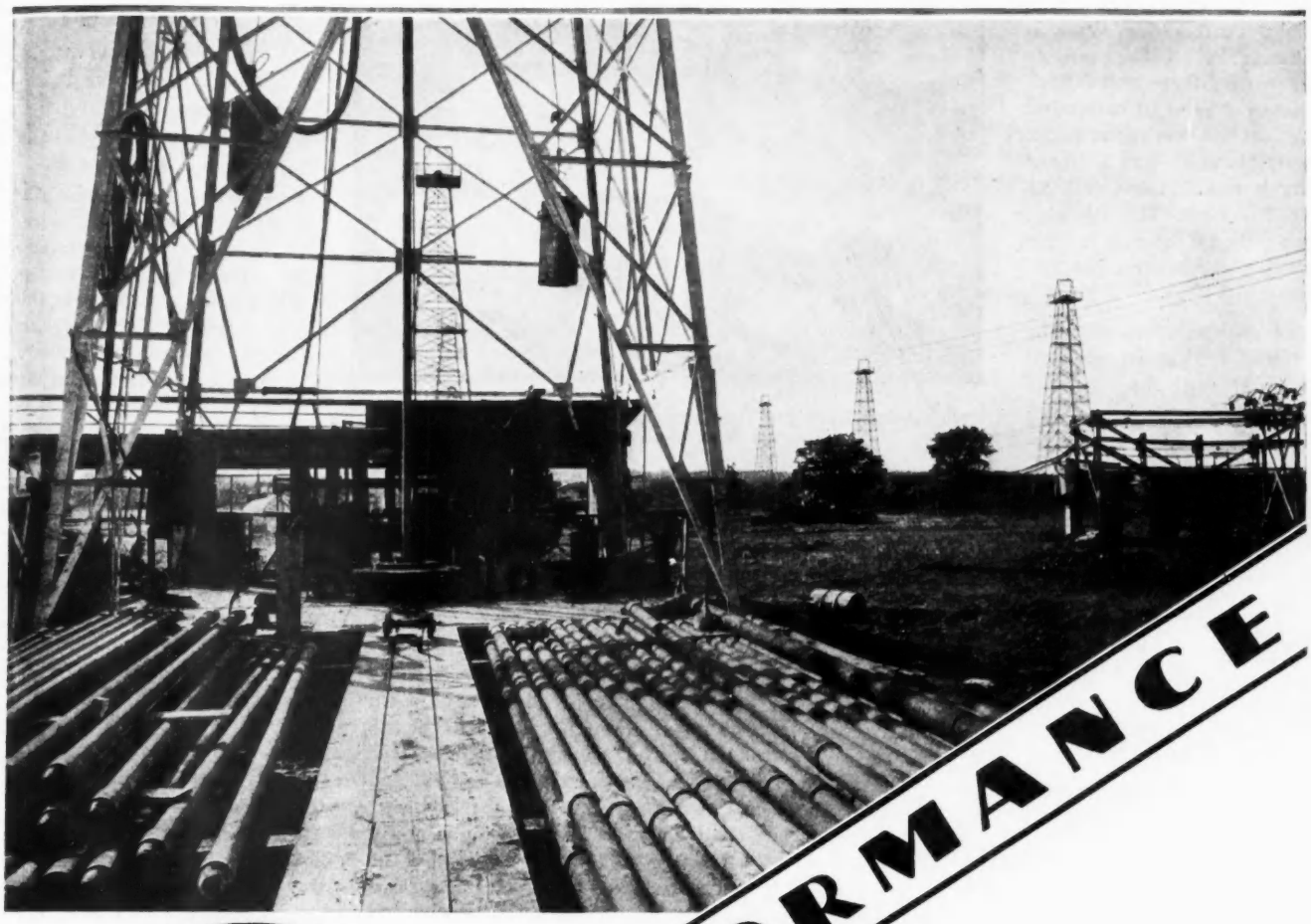


Welded aluminum coil assembly

Regardless of which gas is used the torch should be adjusted to produce a neutral flame since this flame has the highest temperature and is the most economical. Aluminum does not absorb carbon at welding temperature, so a



Shell of large aluminum tank assembled for welding, showing use of clamps for alignment



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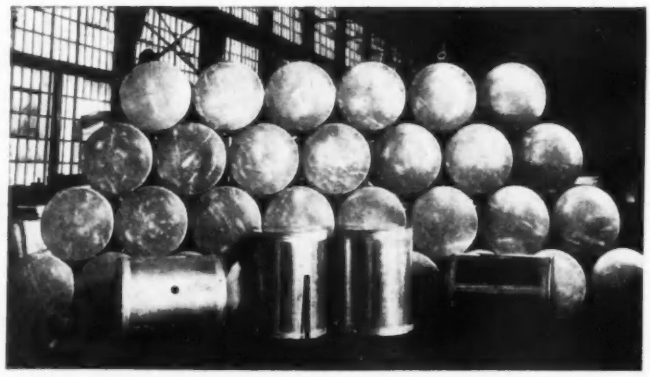
slightly carbonizing flame is permissible. An excessively carbonizing flame will deposit a large amount of carbon on the weld, however, with the result that the action of the flux is retarded and welding speed reduced. The oxidizing flame should be avoided for reasons which are quite evident.

In making the weld the torch is held at an angle of about 30° with the sheet and with the tip about an inch from the puddle. This helps to prevent burning holes in the work due to local overheating and, at the same time, preheats the metal ahead of the puddle. The flame should be directed so that it heats both sheets uniformly and melts the sheets and filler rod at the same time. The end of the filler rod must be kept in the flame as the heat in the puddle is not sufficient to melt the wire. As the welding progresses it is necessary to increase the welding speed since the temperature of the sheet gradually rises.



Aluminum liners for steel shipping drums. Note how heads are flanged to keep weld away from corner

Aluminum Expands

It is a well-known fact that aluminum expands when heated and that this expansion is about twice that of steel. Theoretically, the material will contract as much on cooling as it has expanded on heating and the net result should be zero. The welding has been completed while the metal was in the expanded state, however, and a return to the original size and shape is sometimes impossible, with the result that the finished assembly may be slightly buckled. The distrotion is, quite often, more or less symmetrical and not detrimental. In some cases, however, the buckles must be removed and, when this is necessary, they can easily be hammered out.

Since aluminum has a high rate of heat conductivity, the heat of the torch flame is rapidly drained from the vicinity of the weld. This is particularly noticeable in heavy material and will often require a much larger torch tip than would be expected. Table I offers a guide for selecting the tip to be used on different thicknesses of metal. These tip sizes are not offered as an inflexible rule, and the table should not be considered in that light. The sizes given are the averages of the tips actually used by a rather large group of welders. It will often be found an economic advantage to use a preheating torch, too, since this speeds up the work and reduces the volume of welding gas required.

TABLE I

Metal thickness B. & S. Gauge	Size of orifice in tip (inches)	Oxygen pressure (lb. sq. inch)	Hydrogen pressure (lb. sq. in.)
Oxy-hydrogen			
20 gauge to 18 gauge	0.062	1	2
16 gauge to 14 gauge	0.078	1	2
12 gauge to 10 gauge	0.093	2	4
⅛ inch to ¼ inch	0.125	8	12
5/16 inch to ⅜ inch	0.109	4	8
Oxy-acetylene			
24 gauge to 18 gauge	0.031	1	2
16 gauge to 14 gauge	0.042	1	2
12 gauge to 10 gauge	0.051	8	6
⅛ inch to 3/16 inch	0.062	12	8
¼ inch	0.074	20	8
5/16 inch	0.084	25	8
⅜ inch to ⅝ inch	0.095	25	8

The proper selection of welding wire (or filler rod) is of major importance in securing consistently reliable joints. Most work on the light gauges of 2S or 3S is done with a commercially pure aluminum (2S) wire. This wire is of substantially the same composition as the sheets and, therefore, has the same general properties. (The 1¼ per cent manganese in the 3S has little effect on its welding properties.) It is sometimes found, though, that the base metal is not free to contract immediately after welding and severe strains are thrown in the weld while it is still hot. These stresses are especially severe in heavy material and, in the cases where a weld is made near a bend, may cause cracked welds. In addition, the heat treated, strong alloys are somewhat hot short and, therefore, subject to cracks. To avoid this trouble a silicon alloy filler rod is commonly used.

These alloys have a small solidification shrinkage, a low melting point, good hot strength, and are quite fluid when molten. These characteristics enable the weld to absorb contraction strains without cracking. The action of the weld metal can be compared to that of a gate in a casting as the low melting point results in the weld proper being the last to solidify. At the present time, the most commonly used alloy of this group is that containing five per cent silicon and 95 per cent aluminum. This alloy has been used exclusively on the strong alloys with very great success.

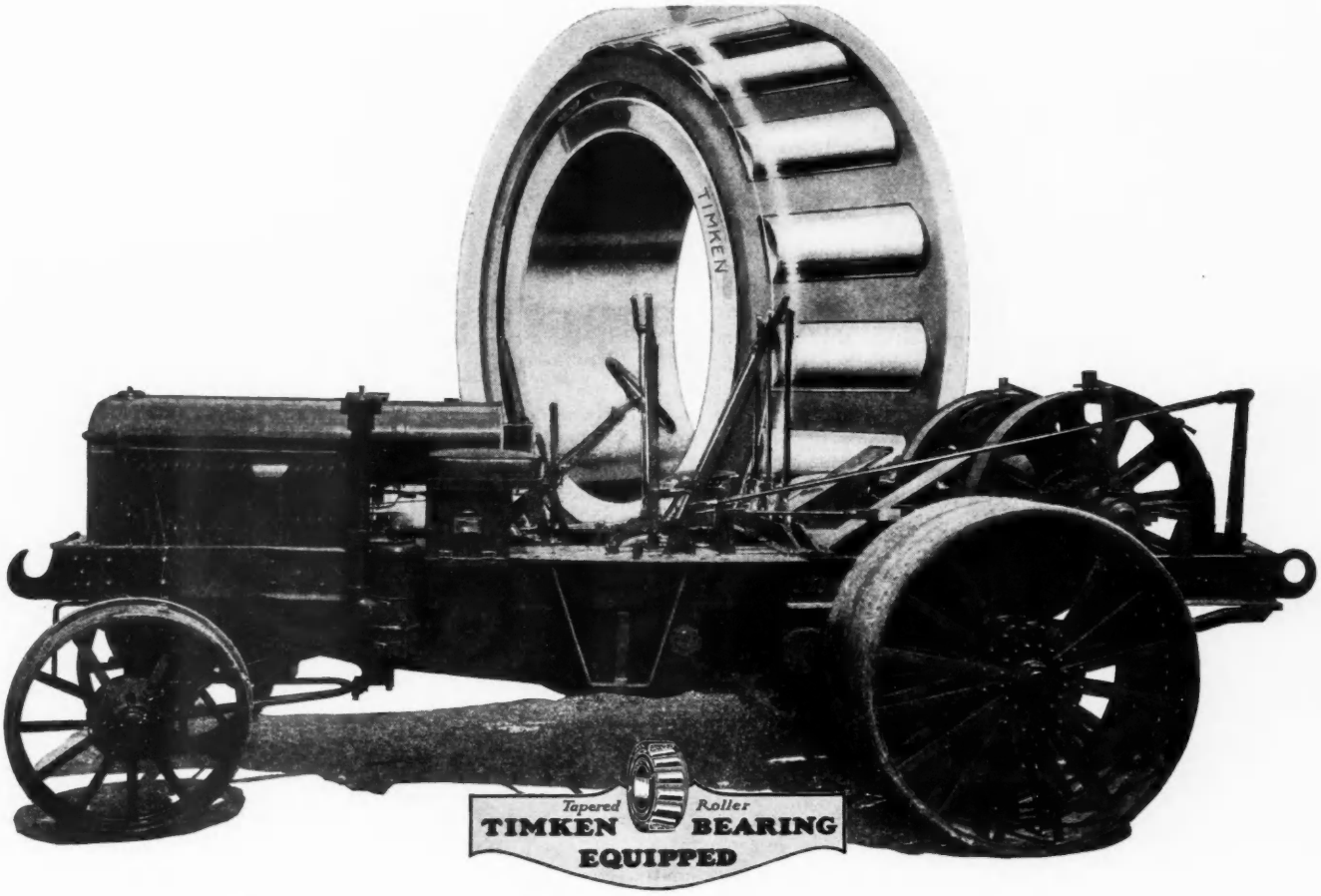
Wire Size Varies

The size of wire used for various work will often vary with the welder. A ⅛-inch diameter will usually be found suitable for metal up to ⅛-inch thickness while a 3/16-inch wire is commonly used on heavier material. The accompanying Table (II) can be used as a guide, but is not offered as a rule.

TABLE II

Metal thickness B. & S. gauge	Metal thickness (inches)	Wire diameter (inches)
Up to 18	Up to — 0.040	0.080
18 — 16	0.040 — 0.051	0.092
16 — 14	0.051 — 0.064	0.104
14 — 12	0.064 — 0.081	0.116
12 — 10	0.081 — 0.102	0.128
10 — 8	0.102 — 0.128	0.144
8 — 6	0.128 — 0.162	0.160
6 — 4	0.162 — 0.204	0.176
4 — 2	0.204 — 0.258	0.192
2 — 00	0.258 — 0.365	0.212

In making the welds in rather heavy (1¼-inch) metal it is common practice to make the weld in two layers and to work from only one side of the sheet. The first layer of the weld is burned in thoroughly to insure good penetration and the vee is only about half filled. Going over the weld the second time permits completion of the weld and the building of a suitable reinforcing bead. A little care in applying this second layer is necessary when working from the edge of a sheet. In this case it is advisable to start at a point about six inches from the end and weld back toward the normal starting point before starting down the seam. If welding is begun at the edge and carried straight through, the weld will sometimes crack directly behind the welder and this crack will usually follow



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him down the seam. The first layer of the weld holds the metal rigid and the contraction following the application of the second layer, having no other outlet, produces the crack. In a circular seam it is advisable to start the weld near a "tack" so that the tack-weld will absorb the contraction strains. These precautions also apply to the welding of all gauges of the heat treated strong alloys. Welding on these alloys should never be started at the edge of the sheet as their hot-shortness will almost invariably cause cracked welds.

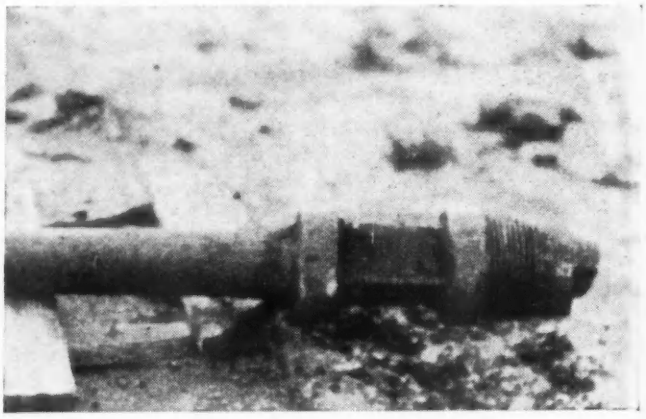
When welding has been completed the flux should be carefully washed from the weld. The flux is designed to remove the aluminum oxide and, since the oxide is the more resistant to attack, it is natural that the flux will attack the metal. If the flux is not completely removed, there is danger of some corrosion after the equipment has been placed in service. Furthermore flux remaining on the seam will cause paint to blister and peel off. Warm water and the vigorous application of a scrubbing brush will usually prove sufficient while a steam jet, closely followed by a stream of water, is very good. Soaking the welded articles in warm water or a three to five per cent nitric or sulfuric acid solution is recommended, when possible. Of coure, the acid bath should be followed by a rinse in water.

After the flux has been removed the weld can be finished by grinding or by chipping and hammering, in case a smooth surface is desired. Many welds are left "as welded", but when a finish is desired, chipping and hammering is the common practice.

Welded 2S or 3S alloy structures, except those made rrom fully annealed sheet, when viewed under the microscope, normally show three distinct areas. The weld proper is, of course, in the cast condition since the metal has been entirely molten. An area where partial annealing has occurred is found on either side of the weld and beyond this zone the sheet is unaffected. Usually the weakest point in such a structure occurs about ½-inch to one-inch from the edge of the weld, especially if the reinforcing bead is of a normal height. When the structure is being made from annealed sheet, however, the two zones outside the weld merge and there is no definite point of weakness unless it be that point where the weld and sheet join and an abrupt change in thickness results. Welded structures of annealed material will develop approximately 100 per cent strength efficiency but, due to the partially annealed zone, welds on hard rolled sheet can not be expected to develop such a high value.

Many of the fittings used on tanks are castings and are usually 43 alloy (five per cent Si, 95 per cent Al). When welding these castings to tanks, five per cent silicon wire should be used. The technique for welding castings is substantially the same as that used on sheet, but care must sometimes be exercised on castings to secure more uniform expansion and, on large and intricate castings, total preheating is often required. This preheating should never be carrier above 800° F. When pyrometric control is not available, a good test is to draw a pine stick across the metal. When the stick leaves a char-mark the preheating temperature has been reached.

Practically all fusion welding at the present time is being done with the torch, but it might be well to mention that the arc welding of aluminum is being developed. At this time, however, the process is just emerging from the experimental stage and its possibilities are entirely a matter of conjecture. The operating technique is only partly established and the properties of the weld are not fully determined. The indications are, however, that this type of weld is slightly porous but will develop a higher strength efficiency than a torch weld.



Galician "Safety Pole," male end

These "Safety Poles" Screw Together and Won't Unscrew

Here are photographs of a joint of drill stem or, more properly, "fishing pole," resurrected from a Roumanian junk pile. No claims are laid to novelty on behalf of these "safety poles," as they are known locally; in fact, they were described as "an old Galician custom" long ago introduced into Roumania.

These safety poles were used in fishing jobs, where it might be necessary to rotate either to the right or to the left.

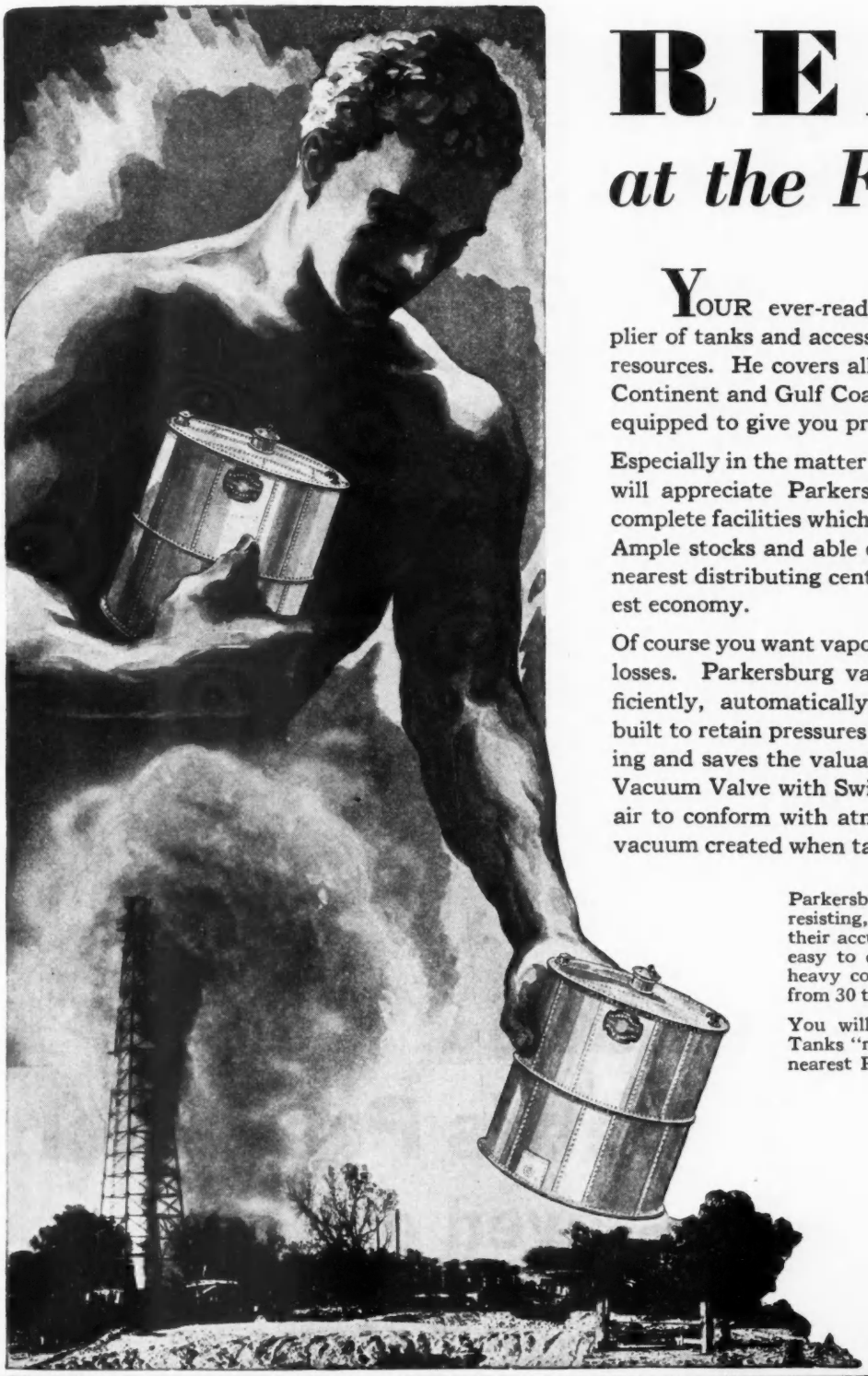
The joints are of the tongue and groove type, as shown in the accompanying illustrations. Both ends are threaded to fit a sliding sleeve or collar which slips over the tongue-and-groove joint and makes up tightly as a sort of re-enforcement or bandage over the joint. The collar sustains the tensile strain and the tongue-and-groove joint bears the burden of torque.

The poles are solid, but there seems to be no good reason why they should not be made with water courses like rotary drill pipe.

There are many types of fishing jobs where it would be very helpful to have a drill stem which could be rotated either to the right or to the left. Suppose one were fishing with a steel die, for example. If he should "bite off more than he could chew," it would be an easy matter to unscrew the die and come out of the hole.

Would not the idea also be adaptable to sucker rods?

Galician "Safety Pole," female end, showing collar which screws down the joint



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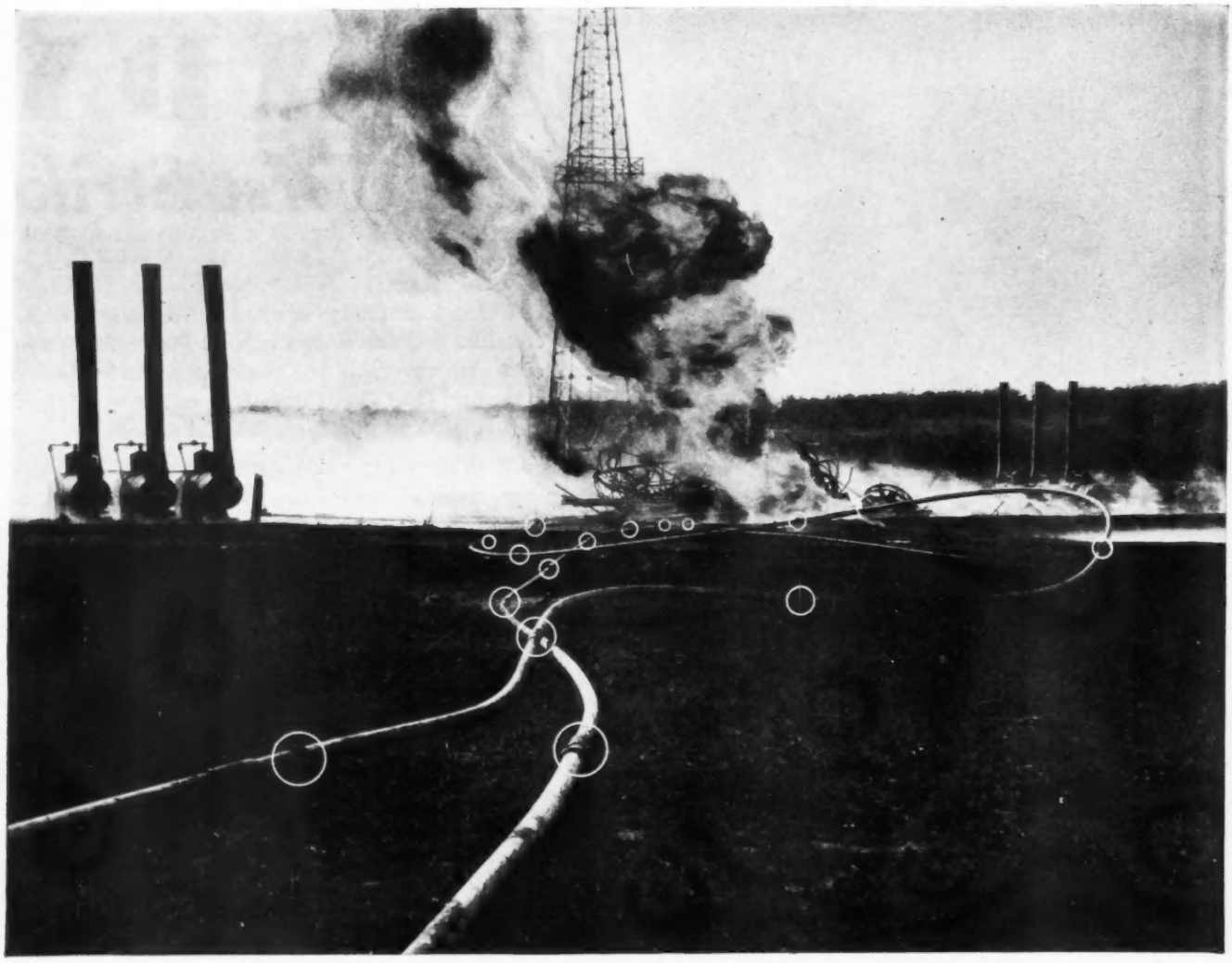

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Markets • Production • Crude Prices

H. J. STRUTH, *Staff Economist, Houston, Texas*

Crisis in East Texas Area Demands Curtailment Action

Another gain last week in the combined Joiner-Gilgore-Longview, East Texas area of 26,650 barrels brought the daily average output of the new district up to 72,700 barrels. This represents a total gain since February 1 (within a period of six weeks) of 68,200 barrels daily. As a result of the successful efforts of operators there to obtain production, Texas' excess above the allowable set by the railroad commission is now 82,050 barrels. With many new wells nearing the producing horizon in East Texas and scores of new locations being made each week, the industry in Texas faces a serious situation.

That proration has become imperative in East Texas is evident from the outlook not only in other fields of Texas but also in Oklahoma, Kansas, New Mexico and California. Operators that have abided by proration orders in other sections of Texas, as well as in the states mentioned, are undoubtedly justified in taking the position that they cannot continue to withhold production while East Texas swamps the market with cheap oil. East Texas operators have a right to develop their new-found production but unless they too realize the economic necessity for curtailment, the whole petroleum industry is apt to suffer complete collapse of its market structure. Recent price slashes are directly attributable to East Texas and further demoralization throughout every field in the United States is imminent unless drastic measures are taken to stem the menacing flood of oil from the new area.

Announcement of a second drastic reduction in crude prices in California, cutting the price of oil from one cent to 30 cents a barrel in that state, effective March 15, by Union Oil Company of California and General Petroleum Corporation, further emphasizes the far-flung effect of rising production in East Texas.

There will be another hearing before the Texas Railroad Commission at Austin, Tuesday, March 24, at which time East Texas operators will be asked to show cause why the new producing area should not be prorated. Undoubtedly, the hearing and preliminary survey conducted by the proration committee will result in some definite action to effect reasonable curtailment. In the face of the industry's present market situation, there is every reason to believe that East Texas operators will have little substantial evidence to offer against being prorated.

East Texas the Cause

Every thinking oil man in Texas and elsewhere in the United States realizes that proration and curtailment of excessive production was successful up to the discovery and untimely development of East Texas. Few in the industry have not pointed an accusing finger at the East Texas fields as being the "knock-out" blow to the otherwise improved statistical position. East Texas is apparently due to become a most important part of the industry, but operators there must realize that their financial future is also to some extent dependent upon the welfare of the balance of the industry. In fact, it is not at all improbable that a continued deluge of oil from that area could completely disrupt the national oil price structure to the extent where every barrel of East Texas oil would also be produced at a serious financial loss.

It is up to operators in East Texas to realize their position as an integral part of the petroleum industry and agree to limit their production ratably with other producing areas. It is believed that the hearing at Austin next week will result in the adoption of constructive measures of control in East Texas. If the threat of the new area is removed by concerted agreement on proration, there is every reason to believe that the dark cloud now hanging over the crude market structure will rapidly disappear from the horizon. At any rate, under existing conditions, even complete eradication of alleged import difficulties would have no beneficial effect upon the oil market with East Texas oil production surging forward at the rate of 26,000 barrels increase each week.

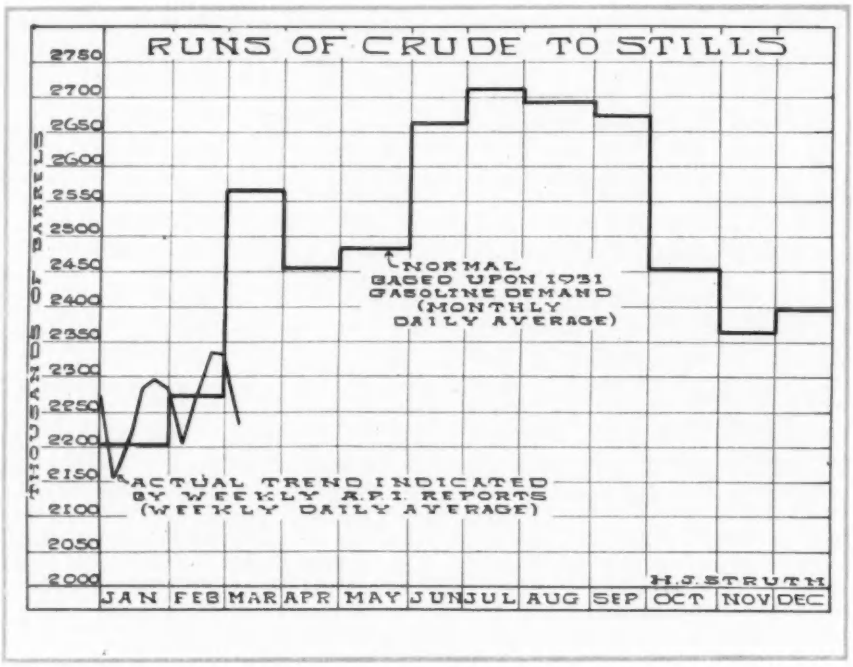
Aside from the large gain reported in Texas, there were gains in Oklahoma, Arkansas, Rocky Mountain States and California last week. Decreased output was reported by Kansas, Gulf Coast, North Louisiana and Eastern States. Production changes outside of East Texas were minor; Oklahoma City reported only a gain of 4,550 barrels, while the state reported a total gain of 8150 barrels. Peak production of Oklahoma City last week was 159,000 barrels, although the average for the week amounted to 132,800 barrels. Recent gains in production of Oklahoma City have resulted in boosting the state excess over allowable output to the extent of 44,800 barrels, although the cumulative excess, since January 1, only amounts to 5269 barrels. This indicates that Oklahoma has maintained a fair state of balance between supply and demand. California shows an excess over allowable production of 27,900 barrels, a gain of 4400 barrels over the preceding week. The cumulative excess since January 1 amounts to 30,558 barrels.

California Crude Market In Midst of Severe Crisis

All branches of the market are passing through the worst period experienced in several years. The definite settling of crude prices seems to be the forerunner of a long period of lower quotations. Practically every major company has followed the lead of Union Oil Company and are paying the same prices as the original new schedule set. Standard Oil Company, Union Oil Company and General Petroleum Corporation have posted prices which do not agree for all grades and fields but the differentials are negligible.

Lower crude quotations would ordinarily tend to undermine curtailment, but some of the operators who have shopped around with the view of breaking loose have found it virtually impossible to dispose of their crude at better prices. It happens that the lower crude schedule comes at a time when demand has slackened. This is natural, since

MARKET SECTION



a lack of demand is nearly always the direct cause of price cuts.

Independent operators have fought the new schedule on the basis that it will not allow the producer to make a legitimate profit; but most of these companies have become reconciled to conditions.

The Independent Petroleum Association has held a series of meetings to consider legislation which will be of aid to all producers. This organization is also fighting for a tariff to protect California and other oil producing states.

Still lower gasoline prices certainly have not stimulated the crude market and the connection between these two commodities has become very close. The service station price in the Los Angeles territory is now 10½ cents, with a higher schedule elsewhere. The tank wagon price has been reduced to 8½ cents, allowing the dealer a margin of only two cents.

A still lower crude output is a possibility. One faction holds to the theory that the industry will not become stabilized until production is reduced sharply, while another contends that curtailment should be discontinued to allow over-production to pass, even with a short flood of oil.

Crude Runs to Stills, Gasoline Stocks and Gas and Fuel Oil Stocks

Week ending March 7, 1931

(Figures in barrels of 42 gallons)

District—	Potential Capacity (Reporting) Total	Potential Capacity (Reporting) Reporting	Per Cent	Crude Runs to Stills Total	Crude Runs to Stills Daily Average	Crude Runs to Stills Per Cent Operated	Gasoline Stocks at Refineries	Gas & Fuel Oil Stocks
East Coast	612,700	612,700	100.0	3,168,000	452,600	73.9	8,180,000	7,085,000
Appalachian	141,300	132,500	93.8	649,000	92,700	70.0	1,512,000	1,052,000
Indiana, Illinois, Kentucky	390,800	381,000	97.5	1,894,000	270,600	71.0	5,169,000	3,057,000
Oklahoma, Kansas, Missouri	461,100	412,200	89.4	1,547,000	221,000	53.6	3,236,000	3,777,000
Texas	809,000	743,500	91.9	3,814,000	544,800	73.3	7,920,000	8,319,000
Louisiana-Arkansas	266,600	262,000	98.3	978,000	139,700	53.3	1,907,000	2,363,000
Rocky Mountain	150,100	139,700	93.1	263,000	37,600	26.9	1,840,000	851,000
California	898,500	887,600	98.8	2,892,000	413,100	46.5	16,025,000	100,924,000
Total Week March 7	3,730,100	3,571,200	95.7	15,205,000	2,172,100	60.8	45,789,000	127,428,000
Total Week February 28	3,730,100	3,571,200	95.7	15,863,000	2,266,100	63.5	44,792,000**	129,145,000
Total March 8, 1930	3,660,900	3,497,400	95.5	17,729,000	2,532,700	72.4	*53,349,000	*137,325,000
The Texas and Louisiana Gulf Coastal Figures Shown Below are Included Above in the total of their respective districts.								
Texas Gulf Coast	529,500	529,500	100.0	3,070,000	438,600	82.8	6,670,000	5,980,000
Louisiana Gulf Coast	147,500	147,500	100.0	661,000	94,400	64.0	1,684,000	1,308,000

* Revised due to change in California.

** Figure of 129,145,000 is comparable with previous weeks, but, due to transfer in Texas Gulf Coast, of 887,000 barrels from finished gas oil stocks to unfinished oils figure comparable with subsequent weeks is 128,258,000 barrels.

MARKET SECTION

HOW LAST WEEK'S DAILY AVERAGE PRODUCTION COMPARES WITH NECESSARY AND NORMAL QUOTA LIMIT

State—	Indicated Demand First Quarter 1931	Economic Limit First Quarter 1931	Daily Average Last Week	Daily Excess Last Week	Daily Average Since January 1	Daily Excess Since January 1
Arkansas	54,000	52,000	48,400	—3,600	49,932	—2,068
California	547,000	500,000*	527,900	27,900	530,558	30,558
Kansas	109,000	105,000	111,400	6,400	110,531	5,531
Louisiana	73,000	71,000	66,600	—4,400	69,519	—1,481
Oklahoma	510,000	465,000*	509,800	44,800	470,269	5,269
Texas	739,000	644,000*	726,050	82,050	683,705	39,705
Balance of U. S.	236,000	225,000	200,400	—24,600	207,097	—17,903
Total	2,268,000	2,062,000	2,190,550	128,550	2,121,617	59,611

* Allowable.

A gain last week in refinery runs of about 146,000 barrels daily, boosting the daily average to 2,383,000 barrels (Bureau of Mines basis) was prompted as a result of increased demand for gasoline. Despite the sharp increase in still runs, stocks of gasoline showed an increase of only 32,000 barrels for the week, indicating a material gain in consumption. Gasoline stocks as of March 14 aggregated 45,821,000 barrels, according to the American Petroleum Institute, compared with 45,789,000 barrels on March 7. The accompanying chart does not show the course of runs for last week, but the sharp upward turn is justified since the projected course of runs indicates that the demand for gasoline during March requires a daily average throughput of 2,566,000 barrels. However, since runs exceeded the normal limit during January and February, it is obvious that some adjustment is necessary during the present month. In view of the better demand for gasoline, it is indicated that the trend of still runs will continue upward to a point somewhere between 2,400,000 and 2,500,000 barrels daily.

Cracked Gasoline Production

Week ending March 7, 1931

(Barrels of 42 gallons)

District	Potential Total	Charging Reporting	Capacity Per Cent	Production Total	Production Daily Average
East Coast	246,900	222,900	90.3	530,000	75,700
Appalachian	45,900	43,400	94.6	117,000	16,700
Ind., Ill., Ky.	294,200	280,200	95.2	472,000	67,400
Okla., Kans., Mo.	219,900	197,900	90.0	327,000	46,700
Texas	395,500	379,400	95.9	690,000	98,600
Louisiana-Arkansas	109,400	107,900	98.6	209,000	29,900
Rocky Mountain	95,100	95,100	100.0	79,000	11,300
California	182,700	178,700	97.8	274,000	39,100
Total week Mar. 7	1,589,600	1,505,500	94.7	2,698,000	385,400
Total week Feb. 28	1,589,600	1,505,500	94.7	2,746,000	392,300
Total March 8, 1930		(Not Available)			

The Texas and Louisiana Gulf Coast Figures Shown Below are included in the totals of their respective districts.

Texas Gulf Coast	305,000	300,500	98.5	584,000	83,400
Louisiana Gulf Coast	77,000	77,000	100.0	144,000	20,600

Imports of Petroleum

(Barrels of 42 gallons)

	Total Month February	Total Month January	Week Ended March 7	Week Ended February 28
AT ATLANTIC COAST PORTS—				
Baltimore	877,000	546,000	257,000	114,000
Boston	474,000	419,000	184,000	59,000
New York	3,578,000	4,781,000	798,000	1,257,000
Philadelphia	888,000	1,020,000	135,000	145,000
Others	752,000	949,000	.....	364,000
Total	6,569,000	7,715,000	1,374,000	1,939,000
Daily Avg.	234,607	248,871	196,286	277,000
AT GULF COAST PORTS—				
Galveston Dist.	127,000	63,000	63,000	64,000
New Orleans & Baton Rouge	324,000	362,000	102,000	76,000
Port Arthur & Sabine Dist.	.....	65,000	.....	.....
Tampa	15,000	96,000	.....	.....
Total	466,000	586,000	165,000	140,000
Daily Avg.	16,643	18,903	23,571	20,000
AT ALL UNITED STATES PORTS—				
Total	7,035,000	8,301,000	1,539,000	2,079,000
Daily Avg.	251,250	267,774	219,857	297,000
Distribution of Total Imports Is as Follows:				
Crude	4,339,000	5,145,000	885,000	1,149,000
Gasoline	1,076,000	1,198,000	306,000	366,000
Gas Oil	20,000	99,000	49,000	.....
Fuel Oil	1,600,000	1,859,000	299,000	564,000
Total	7,035,000	8,301,000	1,539,000	2,079,000

California Receipts

(Barrels of 42 gallons)

	Total Month February	Total Month January	Week Ended March 7	Week Ended February 28
AT ATLANTIC COAST PORTS—				
Baltimore	162,000	260,000	.....	.....
Boston	76,000	205,000	.....	.....
New York	816,000	681,000	195,000	198,000
Philadelphia	112,000	455,000	57,000	.....
Others	161,000	344,000	138,000	.....
Total	1,327,000	1,945,000	390,000	198,000
Daily Avg.	47,393	62,742	55,714	28,286
AT GULF COAST PORTS—				
Total	105,000	190,000	77,000	.....
Daily Avg.	3,750	6,129	11,000	.....
AT ATLANTIC & GULF COAST PORTS—				
Total	1,432,000	2,135,000	467,000	198,000
Daily Avg.	51,143	68,871	66,714	28,286
Distribution of Total California Oil Receipts Is as Follows:				
Gasoline	1,146,000	1,692,000	390,000	198,000
Kerosene	47,000	80,000	.....	.....
Gas Oil	75,000	192,000	77,000	.....
Fuel Oil	153,000	171,000	.....	.....
Lubricants	11,000	.....	.....	.....
Total	1,432,000	2,135,000	467,000	198,000

MARKET SECTION

United States Daily Average Production

1930	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Daily Av.	United States Total
March	622,650	115,500	644,400	206,000	41,600	58,600	132,700	73,600	649,000	2,544,050	78,865,400
April	657,050	122,200	640,950	206,800	42,100	57,800	138,700	75,950	625,700	2,576,250	77,018,100
May	663,300	131,000	662,350	203,900	39,900	53,800	137,150	82,500	623,700	2,597,700	80,529,600
June	665,550	133,600	668,300	210,500	40,300	56,900	135,750	84,600	598,000	2,593,500	77,806,900
July	594,750	121,600	652,350	209,400	40,550	55,400	137,200	98,350	610,450	2,520,050	78,121,200
August	558,850	115,650	646,400	206,600	41,500	55,100	128,550	106,000	611,250	2,470,900	76,597,600
September	558,900	116,550	606,550	200,750	40,150	53,550	121,400	110,650	604,900	2,413,400	72,402,205
October	542,100	114,850	609,500	194,850	41,500	52,800	121,750	104,000	590,800	2,372,150	73,536,350
November	491,550	111,400	579,350	190,100	44,050	52,000	116,400	101,950	601,200	2,288,000	68,639,150
December	459,300	105,550	533,400	189,300	43,000	51,100	112,200	100,500	587,450	2,181,800	67,636,500
1931											
January	452,000	106,350	511,050	188,850	41,100	50,700	110,300	96,700	535,700	2,092,750	64,874,450
February	473,750	114,450	523,700	185,600	43,950	49,950	109,800	100,100	527,300	2,600,600	59,600,450
February 28	445,550	113,100	533,300	183,250	42,800	50,050	112,450	98,100	522,300	2,100,900	14,706,300
March 7	501,650	112,450	546,250	180,600	41,250	47,950	109,000	94,050	523,500	2,156,700	14,096,900
March 14	509,800	111,400	573,700	178,450	40,500	48,400	106,150	94,250	527,900	2,190,550	15,333,850
Increase	8,150	.....	27,450	.....	.....	450	.....	200	4,400	33,850	236,950
Decrease	.....	1,050	.....	2,150	750	.....	2,850	.....	.....	.....	.....

Last Week's Daily Average Production by Districts

TEXAS	March 14	March 7
Panhandle District	52,350	53,050
North Texas	59,450	59,500
West Central Texas	25,300	25,200
East Central Texas	129,650	100,700
West Texas	231,350	232,750
Southwest Texas	75,600	75,050
Texas Gulf Coast	152,350	154,050
Total Texas	726,050	700,300
OKLAHOMA	509,800	501,650
CALIFORNIA	527,900	523,500
KANSAS	111,400	112,450
North Louisiana	40,500	41,250
Louisiana Gulf Coast	26,100	26,550
Total Louisiana	66,600	67,800
ARKANSAS	48,400	47,950
MOUNTAIN STATES		
Wyoming	41,800	44,550
Montana	8,400	8,050
Colorado	4,150	4,200
New Mexico	39,900	37,250
Total Mountain States	94,250	94,050
EASTERN STATES	106,150	109,000
Total United States	2,190,550	2,156,700

Summarized Review of Field Results

State—	Completions This week	Completions Last week	Oil Wells This week	Oil Wells Last week	Gas Wells This week	Gas Wells Last week	Failures This week	Failures Last week	Initial Prod. This week	Initial Prod. Last week
Arkansas	1	4	1	3	..	..	..	1	300	110
California	10	6	8	4	..	..	2	2	6,440	1,575
Illinois	1	4	..	..	..	..	1	4	...	...
Indiana	2	2	..	2	1	..	1	..	...	115
Kansas	13	17	5	10	3	3	5	4	1,850	7,355
Kentucky	16	11	8	7	5	1	3	3	590	586
Louisiana	9	11	3	2	..	2	6	7	577	488
Michigan	..	1	..	..	..	..	..	1	...	...
Mississippi	1	1	..	..	..	..	1	1	...	...
New Mexico	..	1	..	..	..	..	..	1	...	...
Ohio	26	28	7	6	11	17	8	5	119	36
Oklahoma	22	31	11	21	3	3	8	7	16,500	97,707
Pennsylvania	4	2	2	..	1	1	1	1	11	...
Texas	59	84	27	32	4	4	28	48	104,520	71,324
West Virginia	13	17	3	3	10	13	..	1	22	57
Total	177	220	75	90	38	44	64	86	131,029	179,353
Increase this week	..	..	..	..	..	..	..	..	...	...
Decrease this week	43	..	15	..	6	..	22	..	48,324	...

Comparison of Permits Granted for New Wells

State—	Week Ending March 14	Previous week	This week 1930	Total this Month	This month 1930	Total this year	Total this date last year	1930 year total
Arkansas	4	..	..	4	5	16	25	108
California	12	14	17	26	47	79	168	922
Louisiana	13	4	30	17	116	82	214	948
Kansas	8	9	17	17	58	120	191	944
Oklahoma	28	19	44	47	170	251	549	2,830
Texas	101	132	168	233	495	947	1,586	7,052
Total	166	178	276	344	891	1,495	2,833	12,804

MARKET SECTION

Mid-Continent Oil Market Influenced by Other Areas

The oil price structure of the Mid-Continent is now under the influence of other areas. In particular, oil producers of Oklahoma are concerned over East Texas. Unless there is some measure of regulation in East Texas, the opinion prevalent in Oklahoma is that both proration and the price structure will be difficult to hold in Oklahoma.

Further reductions in California schedules also have had a bearish influence in Oklahoma.

One definite change in Oklahoma is the increasing amount of Oklahoma City oil, which is now moving from the field. The output of that field went to a new high record Thursday of last week, when 159,000 barrels was produced. The flow of Oklahoma City wells fluctuated during the week to give the field an average output of 132,800 barrels. The output of wells, which were behind in flow was the cause of the larger output for the field.

This increase at Oklahoma City has resulted in Sinclair Refining Company getting a substantial part of the oil it has sought there. Sinclair Refining Company's takings from the field are running close to 40,000 barrels daily, with indications that this will be increased. H. F. Sinclair, chairman of the board, Sinclair Consolidated Oil Corporation, returned to Tulsa last week and announced that the capacity of the pipe line from Oklahoma City to Coffeyville, Kansas, ultimately would be enlarged to handle 62,000 barrels daily.

Further connections are being made to the wells of the settled area in northeastern Oklahoma through efforts of the committee named two weeks ago to gain outlet for these wells. The work last week brought connections to 205 of these wells in Tulsa, Osage, Washington and Nowata Counties. Stanolind Crude Oil Purchasing Company, Barnsdall Refineries and National Refining Company were induced to take this oil.

Producers are making slow inroads on stored oil in the Greater Seminole area. Over last week withdrawals amounted to 16,000 barrels daily. It is likely that Seminole storage in time will come into use for Oklahoma City crude.

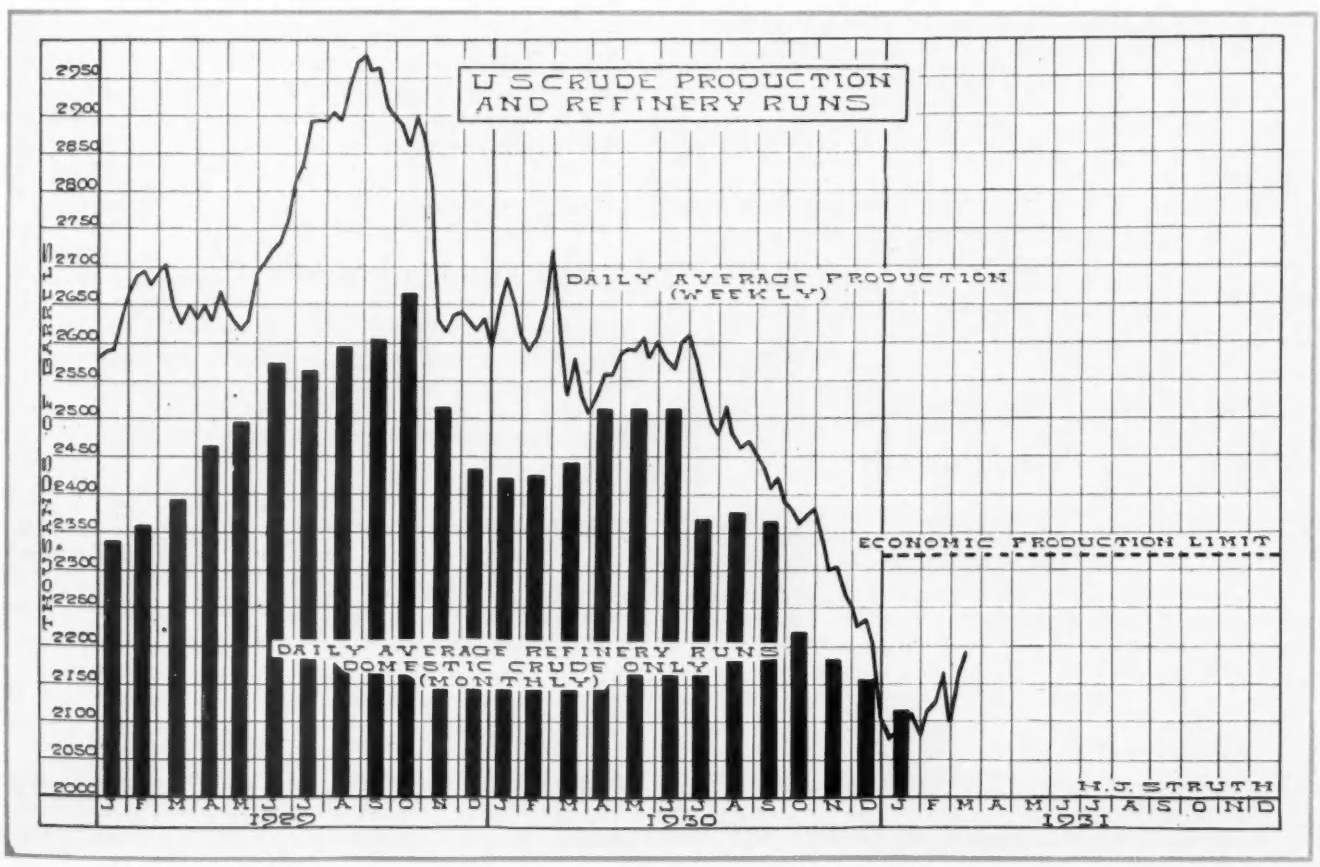
Tulsa.—Indications are that the present proration statutes of Oklahoma will be retained, as a committee report in the Oklahoma house of representatives Tuesday afternoon was unfavorable on the Jones measure, which would vitiate proration in the state.

In Kansas, Governor Woodring signed the Carpenter bill, which will give proration legal status there.

Louisville, Ky.—Stoll Oil Refining Company, of this city, is pushing to completion, work on its 100-mile four-inch, screwed-joint pipe line connecting the recently developed La Grande pool in Hart County, Kentucky, with the company's refinery located in Louisville.

The La Grande field is one of the most interesting developments in Central and Western Kentucky. No accurate knowledge of its potentialities have been known because of inadequate market facilities. Stoll Oil Refining Company is one of several companies buying crude from the field, having originally constructed a two-inch line, now inadequate to the company's requirements.

Crude from the La Grande pool is of excellent quality, being from 38 to 40 gravity, paraffin base.



MARKET SECTION

Producers Not Opposed to Proration in East Texas

Tyler, Texas.—Widely publicized opposition to proration in East Texas is largely based on expressions made by local business interests, while operators actually engaged in developing leases in the three fields are contributing little to the flood of protests eminating from the district. The majority of the protesting local interests are in possession of producing royalties or have mineral interests under potential oil acreage, and are eager for a quick turnover, with no consideration given as to the depressing effect the inevitable flood of high grade crude offered by the district is having on the general oil industry. East Texas operators, with few exceptions, are beginning to look upon proration as being the only hopes of warding off repeated price cuts on the oil as the volume of production mounts to new peak levels. In taking stock of the situation these operators have found that 45 cents is now difficult to obtain on current spot sales and contracts with only about 60 wells on production, and more than five times this number already assured for the district. These sixty-odd wells have a combined potential of about one-quarter million barrels of oil daily on open flow, and no water breaking in to cut short the life of older wells.

Unless some restrictions are introduced the average operator is fearful that drilling obligations will outstrip possible returns from the properties. Such a plight is already confronted by some operators who have seen fit to turn their leases lately.

Saturation point on transportation of crude from the Joiner and Kilgore fields was reached during the past week for a temporary period, but as additional relief is provided by improved rail facilities and through the completion of trunk lines, there will be an even greater percentage of surplus production to offer. Operators who have gone through major drilling campaigns in the past are studying these facts, and are looking upon proration in a more favorable light than was the case some weeks ago when it appeared that East Texas crude would have a big price advantage over all other high gravity crudes.

Actual proration of the East Texas fields may not be a success even though the majority of operators succeed in obtaining such protection for their investments, and at its best a high production quota is inevitable because of the vastness of the productive area, unusual number of trunk lines, tank car rack systems and local refineries to be provided for.

Railroad Congestion Checks Movement of East Texas Oil

Tyler, Texas.—Involuntary proration gripped the Joiner and Kilgore fields at the start of the present week because of serious rail congestion on the I.-G. N. Railroad, and only a few leases in the former area were maintaining capacity flow. These two areas and the Longview field produced 86,500 barrels during the 24 hours ending 7 a. m. March 16 from 47 flowing wells, with 13 additional wells off production for lack of transportation facilities, or because of being dead. Joiner field contributed 30,900 barrels of the above production from 32 wells on production, and during the past week dropped to second place in production honors by reason of having been affected more so than the other fields.

The effect of tank car congestion on the Joiner area within the past five days is illustrated by the fact that the field maintained an average output of 45,400 barrels daily during the week ending March 11, and up to the latter date had produced a total of about 1,350,000 barrels of oil.

Kilgore field advanced into the lead on production with only 10 of its 15 completions, which are all rated at more than 10,000 barrels daily each, being allowed to produce. This field contributed 39,500 barrels to the above mentioned daily production credited to the district, with all but about 9000 barrels coming from Humble Oil & Refining Company's four wells on the Crim lease, and one well on E. M. Jones and Houston Oil Company's Crim lease. Humble Oil & Refining Company's current shipments of 19,000 barrels daily by tank cars to its refinery at Baytown places the company far to the front as the largest producer in the district, and likewise displaces a like amount of transportation that would be utilized by other operators should Humble Pipe Line Company make use of its trunk line that has been virtually completed for a month.

Humble Oil & Refining Company reduced its price offer to royalty owners from 60 to 45 cents per barrel March 16.

Longview field is beginning to forge ahead as a major source of crude, and started the present week off with an output of 16,100 barrels from five wells, all pinched. Shipments from this field are to be made over the Texas & Pacific Railroad, which is in position to handle in excess of 100,000 barrels daily without difficulty by reason of having a modern freight terminal at Longview.

Extension of the Joiner field to the southwest became assured early this week when Mid-Kansas Oil & Gas Company's Moore 1, located in the northeast corner of a 200-acre lease, Prue Survey, cored oil sand at 3680 to 3690 feet followed by shale to 3696 feet.

A fifty-fifty chance was credited to Guy Lewis et al's Cook & Green 1, located in the eastern edge of Smith County to affect an important western extension of the Joiner field early this week. This wildcat cored shale and Austin chalk at 3654 to 3656 feet, and at last reports was coring chalk at 3680 feet. Austin chalk was topped at 3525 feet.

Los Angeles Exposition Draws Foreign Interest

Los Angeles.—The 1931 Oil Equipment and Engineering Exposition opened to the oil industry Monday morning at its new quarters at Compton, a Los Angeles suburb, with exhibitors from all parts of the United States showing their equipment, and with attendance indicated from all quarters of the globe.

The first two days of the exposition indicated probably a much wider interest on the part of foreign oil men than on the part of oil men from parts of the United States outside of California. Oil men from South America, the East Indies and Japan were in attendance Monday.

The new building in which the exposition is housed is a big improvement as an exhibit hall as compared with last year's quarters at Shrine Hall. The exposition will last through next Sunday and coincident with it are being held a number of meetings of various association, etc.

Manufacturers of oil country equipment will hold a meeting Wednesday evening at the convention hall of the exposition building at which export matters will be considered.

MARKET SECTION

Warner-Quinlan Deprived Of Pipe Line Connections

San Angelo, Texas.—Charged with having failed to adhere to proration restrictions by the Texas Railroad Commission, the Warner-Quinlan Company of Texas has been deprived of its pipe line connection and market outlet for 25 wells on three leases in the Church & Fields area, West Texas, and has also been ordered to discontinue deepening of an old producer in search of a lower lime horizon in the field proper. This is the first instance since the inauguration of proration that the commission has issued such far-reaching orders.

Warner-Quinlan Company earned a production allowance of 909 barrels daily from its three properties, which have a combined potential of 2415 barrels, at the beginning of the March proration period. The oil has been run for purchase by Tidal Refining Company to be transported to the Gulf Coast for the latter through the Texas Pipe Line Company system. Warner-Quinlan Company is allaged to have exceeded its production quota, and after some controversy instructions were given by the commission for Tidal Refining Company to sever its connections early this month. Warner-Quinlan Company has more than 1,000,000 barrels of idle tankage in the field, and on March 14 restored its wells to production at rate of 1600 barrels daily, according to reports from the field, with the oil going to storage. The company had drilled its University-Eastland 5 from 2950 to 3250 feet when orders were issued by the commission to suspend further work on the try for a deeper horizon in the field.

Longview, Texas.—Independent Crude Oil Trading Company has been organized by Tom E. Cranfill, E. B. Germany, W. M. Mitchell and others, with headquarters in Dallas, and branch office in Longview, in connection with contracts recently made by this group for the sale of large quantities of East Texas crude to Louisiana refineries and also to an English firm. The above group have one completed well in the Joiner field, and are at work in developing properties under the name of Pilot Oil Company. A pipe line system for Gregg County, with a 50-car tank car rack on the Texas & Pacific Railroad at Willow Springs is being built under the name of Independent Pipe Line Company.

SECOND CUT IN CALIFORNIA CRUDE

Los Angeles.—Effective March 15, Union Oil Company of California posted further reduction for California crude of from one cent to 30 cents a barrel. General Petroleum Corporation also announced similar reductions. Standard Oil Company of California, had not met new scale up to night of March 17. Kettleman Hills 40 gravity oil now 60 cents against former price of 90 cents. Thirty gravity oil in Southern California fields now 68 cents. Gasoline now selling by major companies retail at 10½ cents with a wholesale price of 7½ cents. Last week the wholesale price had been only two cents under retail price. Small company gasoline is being sold at prices ranging from 8½ to 10 cents retail. Other price drops probably may come.

Crude Oil Price Quotations

(Revised to March 17, 1931)

▼ ▼ ▼

EASTERN STATES

(Posted by Joseph Seep Purchasing Agency)

Bradford—Alleghany district (posted by Tide Water Pipe Co., Ltd.) (Effective Nov. 13, 1930) $2.15

Penna. Grade Oil in National Transit Lines (Other Pennsylvania) (Effective, Nov. 13, 1930) 1.85

Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania) (Effective Nov. 13, 1930) 1.80

Penna. Grade Oil in Eureka Pipe Lines (West Virginia) (Effective Nov. 13, 1930) 1.70

Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O.) (Effective Nov. 13, 1930) 1.45

Corning Grade in Buckeye Pipe Lines (Ohio) (Effective Dec. 31, 1930)..... 1.15

Somerset Oil in Eureka Pipe Lines (Effective March 6, 1931)..... .75

Ragland Grade in Cumberland Pipe Lines (Kentucky) (Effective Jan. 9, 1929)... 0.60

*Oil run prior to July 1, 1929 is $2.10 per bbl.

(Posted by Stoll Oil Refining Company)

Oil City, Ky., oil in Stoll lines (Effective March 7, 1931) ..... .70

MICHIGAN

(Posted by Dixie Oil Company)

Traverse and Dundee (Muskegon), effective April 16, 1930, same gravity and price schedule as Prairie posts in Oklahoma and Kansas, on gravity basis prior to reduction on Oct. 27, 1930.

(Posted by Pure Oil Company)

Midland, Midland County, Oct. 27, 1930..$1.10

CENTRAL STATES FIELDS

(Posted by Ohio Oil Company)

(Effective March 5, 1931)

Wooster	$ .99	Princeton	.80
Lima	.90	Illinois	.80
Waterloo	1.20	W. Kentucky	.75
Indiana	.50		

CANADIAN CRUDE

(Posted by Imperial Oil Refineries, Ltd.)

(Effective October 28, 1930)

Petrolia $1.50
Oil Springs 1.57

CRUDE PRODUCTION TAXES

Oklahoma—Three per cent of gross value, less royalty interest.

Texas—Two per cent of gross value.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 per cent of gross market value.

Montana—Two per cent of gross value at well.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

OKLAHOMA, KANSAS and NORTH TEXAS

Prices of Stanolind Crude Oil Purchasing Company and Prairie Oil & Gas Company, Effective Nov. 1, 1930. Carter Oil Company Same Schedule Effective March 5, 1931

Below 29	$ .43	35-35.9	.57
29-29.9	.45	36-36.9	.59
30-30.9	.47	37-37.9	.61
31-31.9	.49	38-38.9	.63
32-32.9	.51	39-39.9	.65
33-33.9	.53	40 and above	.67
34-34.9	.55		

Magnolia Petroleum Company Effective March 5, 1931

Below 26	.40	27-27.9	.42
26-26.9	.41	28-28.9	.43

From here to 40 and above gravity same schedule as above.

NORTH TEXAS

North Texas Crude in Wichita, Wilbarger, Archer, Northern Young, Van Zandt.

All Purchasers

(Effective March 10, 1931)

For Ranger, North Texas, Mexia, Powell, Boggy Creek, Richland, Wortham, Currie, Moran, and Nocona crudes:

Below 29	$ .43	35-35.9	$ .57
29-29.9	.45	36-36.9	.59
30-30.9	.47	37-37.9	.61
31-31.9	.49	38-38.9	.63
32-32.9	.51	39-39.9	.65
33-33.9	.53	40 and above	.67
34-34.9	.55		

(Continued on following page)

MARKET SECTION

▼ ▼ CRUDE OIL PRICE QUOTATIONS ▼ ▼

(Continued from page 57)

PANHANDLE
All Purchasers
(Effective March 10, 1931)
Gray County Crude

Below 35	$ .43	38-38.9	.51
35-35.9	.45	39-39.9	.53
36-36.9	.47	40 and above	.55
37-37.9	.49		

All Purchasers
Effective March 10, 1931
Carson and Hutchinson County Crude

Below 35	$ .38	38-38.9	.46
35-35.9	.40	39-39.9	.48
36-36.9	.42	40 and above	.50
37-37.9	.44		

WEST TEXAS AND NEW MEXICO
All Purchasers
(Effective March 10, 1931)

Winkler County	$ .40
Pecos County	.40
Lea County	.40
Crane, Upton, Howard, Ector, Ward Loving, Crockett, Mitchell, Glasscock Co.'s	.35

SOUTHWEST TEXAS
All Purchasers
(Effective March 10, 1931)

Refugio Heavy crude, below 25 gravity	.69		
Refugio Light crude:			
27-27.9	.75	33-33.9	.87
28-28.9	.77	34-34.9	.89
25-25.9	$ .71	35-35.9	.91
26-26.9	.73	36-36.9	.93
29-29.9	.79	37-37.9	.95
30-30.9	.81	38-38.9	.97
31-31.9	.83	39-39.9	.99
32-32.9	.85	40 and above	1.01
Mirando	$ .69		
Salt Flat	.60		
Darst Creek	.60		
Pettus	.95		
Luling	.45		
Corsicana, heavy	.45		

GULF COAST
(Posted by Humble Oil & Refining Company, The Texas Company, Gulf Pipe Line Company and Sun Oil Company)

Gulf Coast Crude will be classified as follows in fields designated below:

Goose Creek, Hull, Boling, Liberty, Orange, Pierce Junction, Raccoon Bend, Barbers Hill, Sour Lake, Spindletop, Sugar Land, West Columbia and Humble crudes:

"A" GRADE—All crudes conforming to the following tests:

Viscosity—Not less than 100 seconds at 100° F. Saybolt.

Sulphur—Not over .4%.

Beaume Gravity—Not over 25 at 60° F.

Cold test of distillates having a viscosity of 1000 seconds at 100° F. shall not be over 5° F.

"B" GRADE—All Coastal crude which does not meet the test for "A" grade.

(Effective Jan. 14, 1931)

High Island	$ .75		
Grade "A"	.80		
Grade "B"			
Below 25	$ .69	33-33.9	.87
25-25.9	.71	34-34.9	.89
26-26.9	.73	35-35.9	.91
27-27.9	.75	36-36.9	.93
28-28.9	.77	37-37.9	.95
29-29.9	.79	38-38.9	.97
30-30.9	.81	39-39.9	.99
31-31.9	.83	40 and above	1.01
32-32.9	.85		
Jennings, La.	.80		
Markham (The Texas Company)	.50		

LOUISIANA-ARKANSAS
All Purchasers Except Magnolia Petroleum Co.,
(Effective March 10, 1931)
Pine Island, Haynesville, Bull Bayou. El Dorado, Rainbow, Cotton Valley, Zwolle.

Below 29	$ .43	35-35.9	.57
29-29.9	.45	36-36.9	.59
30-30.9	.47	37-37.9	.61
31-31.9	.49	38-38.9	.63
32-32.9	.51	39-39.9	.65
33-33.9	.53	40 and above	.67
34-34.9	.55		
Urania	.75		
Bellevue	$1.00		

Magnolia Petroleum Company, Effective March 10, 1931

Below 26	$ .40	27-27.9	.42
26-26.9	.41	28-28.9	.43

From here prices same as schedule above.

STEPHENS

Below 29	**$ .54**	**31 to 31.9**	**.66**
29 to 29.9	**.58**	**32 and above**	**.70**
30 to 30.9	**.62**		
Smackover	.45		
El Dorado, East Field	.70		
Bellevue	.45		

ROCKY MOUNTAIN FIELDS
(Salt Creek prices effective March 5, 1931)

‡Salt Creek		Elk Basin (Effective Oct. 28, 1931)	
29-29.9	.45	Grass Creek light	.90
30-30.9	.47	Big Muddy	.65
31-31.9	.49	Lance Creek	.98
32-32.9	.51	Rock Creek	.66
33-33.9	.53	Mule Creek	1.20
34-34.9	.55	Rex Lake	1.10
35-35.9	.57	‡Osage	.50
36-36.9	.59	‡Cat Creek	1.25
37 and above	.61	Pondera	1.45
		Sunburst, Mont.	1.55
		‡Hogback, N. M.	1.40

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

California

Effective March 10, 1931
Posted by Standard Oil Company of California

Gravity	Signal Hill	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canon	Athens-Rosecrans Dominguez	Elwood Terrace	Torrance	Richfield	Whittier La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway-Sunset Elk Hills Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills*
14-14.9	$ .65	$ .65	$ .65	$ .65	$ .65		$ .65			$ .65	$ .65	$ .65	$ .65	$ .65	.	$ .55	$ .55	$ .55	$ .55	$ .55	
15-15.9	.65	.65	.65	.65	.65		.65			.65	.65	.65	.65	.65		.55	.55	.55	.55	.55	
16-16.9	.65	.65	.65	.65	.65		.65			.65	.65	.65	.65	.65		.55	.55	.55	.55	.55	
17-17.9	.65	.65	.65	.65	.65		.65			.65	.65	.65	.65	.65		.55	.55	.55	.55	.55	
18-18.9	.65	.65	.65	.65	.66		.68			.65	.65	.65	.65	.65		.55	.55	.55	.55	.55	
19-19.9	.65	.65	.65	.66	.68		.69			.65	.65	.65	.65	.65		.55	.55	.57	.55	.55	
20-20.9	.67	.65	.65	.68	.70	.65	.71			.66	.67	.65	.65	.65			.56	.59	.55	.55	
21-21.9	.70	.66	.66	.70	.72	.66	.72			.68	.69	.65	.65	.66	.65		.57	.61	.55	.55	
22-22.9	.71	.68	.68	.71	.74	.67	.74			.70	.71	.66	.65	.67	.65		.58	.62	.57	.55	
23-23.9	.72	.70	.70	.73	.75	.68	.75			.71	.74		.65	.69	.65		.61	.64	.59	.55	
24-24.9	.73	.72	.72	.75	.77	.69	.77	.65		.72	.76		.66	.71	.65		.63	.66	.61	.56	
25-25.9	.75	.75	.75	.77	.81	.70	.78	.65		.74	.78		.68	.73	.66		.66	.67	.62	.58	
26-26.9	.76	.77	.77	.78	.85		.80	.65		.75	.80		.70	.74	.68		.69	.69	.64	.61	
27-27.9	.77	.80	.80	.80	.89		.82	.66		.77	.82		.72	.76	.70		.71	.70	.66	.63	
28-28.9	.79			.81	.93		.83	.69		.78	.84		.74	.78	.72		.74	.72	.69		
29-29.9	.81			.83			.85	.72			.86		.76	.80	.75		.76	.73	.71		
30-30.9	.83			.85			.86	.75			.88		.78	.82	.78		.78	.74	.73		.64
31-31.9	.85			.87			.88	.78							.80		.80	.76	.75		.67
32-32.9	.87			.89				.81							.83		.83	.77	.77		.70
33-33.9								.84							.85		.86	.78	.79		.73
34-34.9								.88	.85						.87			.80	.81		.76
35-35.9								.91	.88						.90			.82	.83		.79
36-36.9								.94	.91						.92						.82
37-37.9								.97	.94						.95						.84
38-38.9								1.00	.97						.97						.86
39-39.9								1.03	1.00						1.00						.88
40-40.9								1.06	1.03												.90
41-41.9								1.10	1.07												
42-42.9								1.13	1.10												

Subject to field gathering charge of 5c per bbl.

F.O.B. Ship

*Posted by Union Oil Company.

(*Continued from page 30*)

bought by the above concern, withdrew as a prospective buyer some weeks ago, thus eliminating possibilities of a unit plan of development being initiated. Since the Henry L. Doherty interests control Arkansas Fuel Oil Company it was generally expected that the former would attempt to introduce the unit plan for the field by reason of having heretofore fostered the idea.

Yount-Lee Oil Company paid $1,270,000 cash and contracted to pay an additional sum of $2,000,000 payable from one-fourth of the first oil produced to J. E. Farrell, W. A. Moncrief, E. A. Showers, W. S. Noble and R. S. Baker. The deal involves full interest in approximately 2500 acres of leases, and a half interest in the discovery lease. Negotiations were concluded March 12, but the deal is retroactive to February 20, 1931. Because of the delay in winding up the proposition and to account for crude produced and sold during that period the originally agreed upon cash consideration was increased from $1,250,000 to $1,270,000. Farrell held half interest in the acreage, and a quarter interest in the well and site, while Moncrief, Showers, Noble and Baker shared equally in the control of the remaining half of the undrilled acreage and the well. This group of individuals launched the wildcat project last October, and sold Arkansas Fuel Oil Company an undivided half interest for $25,000 cash to cover cost of a test, while additional lease sales within the block had been sold to Amerada Petroleum Corporation, Shell Petroleum Corporation and Tidal Oil Company. When the well cored oil saturated sand last January a division of acreage was made with Arkansas Fuel Oil Company, with the latter assuming charge of operations.

Yount-Lee Oil Company has been the largest oil producer in the Gulf Coast region for a number of years by reason of its outstanding success in developing record depth production from flanks of salt domes, particularly at Spindletop, and has a reputation of being one of the most thorough in carrying on its field operations. Heretofore the officials of the company have elected to restrict their interests to the Coastal Country.

Tentative arrangements have been made by Yount-Lee Oil Company to share with a liberal portion of the capacity of the trunk line to be built by Gulf Coast Pipe Line Company from East Texas to a point near Beaumont. The former has a large tank farm and tanker loading terminal near Beaumont.

Although officials of Yount-Lee Oil Company have announced that drilling activity on its Gregg County holdings will be held down to a minimum there are sufficient direct offsets in prospect to force the company into a large campaign at the start.

Arkansas Fuel Oil Company will continue to operate the discovery lease on the Lathrop farm, which has one well now averaging 4750 barrels daily, and is also marketing the oil as produced, paying a posted price of 47½ cents per barrel at the well for royalty production.

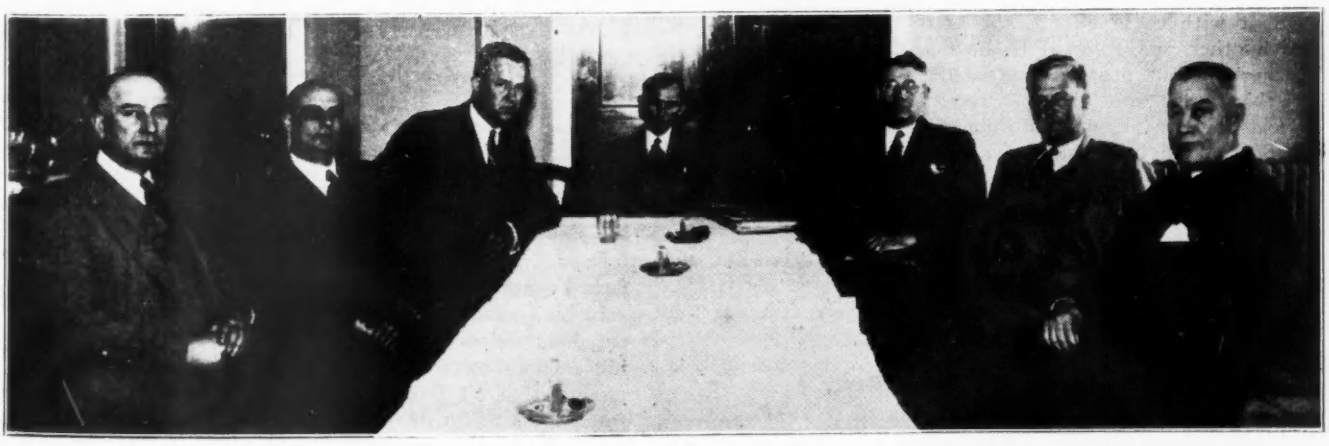
Hoover Asks Proration of Production in East Texas

Washington, D. C.—Proration of production in the new East Texas field is essential if any progress is to be made in negotiations for a reduction of imports, it was declared March 13 by President Hoover, in discussing the efforts of the administration to give relief to the oil industry.

It was made known at the White House that the president was led to make his statement on the situation because of the receipt of several hundred telegrams from the West and Southwest, either inquiring or making suggestions as to the situation in the oil industry.

At the same time it was made known at the Federal Trade Commission that the request of the American Petroleum Institute for a hearing in the matter of the revision of the trade practice rules of the petroleum industry had been granted. The date of the hearing will be announced later, it was stated. The petroleum institute had asked the commission to grant a hearing before putting into effect the revised rules for the industry.

While rather definite conditions of proration have been arrived at with respect to the domestic fields, there is little other than a gentlemen's agreement on the part of the importing interests to do what they can to aid in the pres-



Members of the conference called by Governor W. H. Murray of Oklahoma, which met recently at Texarkana, Texas, to consider the problems of the oil industry. Seated, left to right: John G. Marzel of Wyoming, William H. Cooley of California, Robert R. Penn of Texas, Cicero I. Murray of Oklahoma, O. M. Cox of Wyoming, W. Scott Heywood of Louisiana, and T. H. Barton of Arkansas. The Kansas delegate is not in the picture.—(International Newsreel picture).

ent situation, according to Secretary of the Interior Wilbur. Only Standard Oil Company (Indiana) has remained outside the agreement, while the Gulf Refining Company and Standard Oil Company of New Jersey are included in the agreement, and Royal Dutch Shell and Pan-American Petroleum Corporation have let it be known that they also will co-operate in the movement.

Proration of the Oklahoma City field is 1.5 per cent of potential production, and that of the Hobbs field, New Mexico, and the Yates pool in West Texas is three per cent. According to the president's statement, the flush production of the recent Texas discoveries are a menace to the arrangement which the Federal Oil Conservation Board is seeking to accomplish.

"All we can do," explained Secretary Wilbur, referring to the negotiations which the importing companies, "is to present the problem to the oil companies and ask them to work with us."

It was indicated that the Standard Oil Company (Indiana) has conditions imposed upon it by the Venezuelan government which it has to meet before it joins in the curtailment movement.

Is President's Answer

President Hoover's statement is taken as the administration's answer to the southwestern governors' recently meeting in Fort Worth, Texas, and to the prior governors' conference for relieving the independent oil producing industry, both of which laid before the president the seriousness of the situation to the domestic oil producers with unrestricted imports. Congress refused to adopt any of the relief measures advanced by the independents, and it appears that about all that can be hoped for is an effort at readjustment brought about by agreement within the industry.

"In order to prevent enormous waste of gas and oil and to prevent the ruin of the independent oil producers," President Hoover said, "the Federal Oil Conservation Board brought about over a year ago, under the leadership of Secretary Wilbur, an almost entire restriction of production from the newly discovered, great oil pool at Kettleman Hills, California, a large part of which is the property of the federal government. The state authorities of Oklahoma have brought about similar restraint upon an enormous new pool discovered at Oklahoma City. Coincident with these efforts, the state commissions working with other producers of California, Oklahoma and Texas, brought about proration agreements amongst themselves. A third great pool has been recently developed in Eastern Texas, upon which no proration has yet been brought about, but I am advised that the governor is making an effort to bring it about. The question of prorating of imports has been under agitation as also having a bearing upon the problem.

"We import approximately 105,000,000 barrels of petroleum and its products per annum and export about 156,000,000 barrels, the imports coming largely from certain South American and Mexican oil pools.

Imports Equal 11 Per Cent

"The consumption of the United States is approximately 900,000,000 barrels per annum, the imports thus representing something over 11 per cent and the exports about 16 per cent of the total.

"On January 29 the Oil Conservation Board recommended to congress that authority be given to the Federal Trade Commission to effect proration of imports, it being the board's hope that a proration of production in the foreign pools exporting to the United States could be brought about as well as a proration of imports into the United States. No action was taken by congress upon this recommendation nor upon other plans proposed by the independent oil producers.

"On March 5 therefore, the board, with my approval, requested that importers should each voluntarily prorate their production from foreign pools and their imports into the United States, in order to give Mid-Continent and California fields an opportunity to further readjust their position. The board considers that in the present situation a substantial reduction in imports can be brought about without disturbing the price of oil to the consumer, the Atlantic Seaboard can be supplied from domestic storage. These negotiations are making favorable progress. But such action would have little effect, however, unless the East Texas pool shall be prorated on the same basis as other pools. It is believed that if these two results could be brought about, the industry will soon readjust itself."

Commission Calls Proration Hearing at Austin March 24

Austin, Texas.—With present production limit of 645,000 barrels daily expiring on April 1, the Texas Railroad Commission has called a hearing at Austin for Tuesday, March 24, at which time the matter of prorating the new East Texas fields will be considered. A preliminary meeting of the technical and advisory committee, headed by Robert R. Penn, has also been called at Austin for Monday, March 23, at which time new nominations for Texas crude will be worked into totals by state districts and effort will be made to arrive at a reasonable allowable figure for the new East Texas fields. The committee report will be presented to the railroad commission on Tuesday, at which time operators and their representatives will have an opportunity to be heard concerning the proposed limits set for each field. It is believed that the allowable output of the state will be increased to take care of increased requirements and also to include a reasonable allowance from wells operating in East Texas.

Governor Sterling Wants New Oil Board in Texas

Austin, Texas.—Early action by the Texas legislature on Governor Sterling's proposal to form a separate oil board or state oil conservation commission is anticipated with support being offered by former Governor Pat M. Neff, minority member of the Texas Railroad Commission, and despite the opposition of C. V. Terrell and Long Smith, who have publicly attacked proration as "monopolistic."

In his message to the legislature, Governor Sterling pointed out that, "unless immediate remedial action is taken to relieve the situation in which the oil industry, and particularly the producers of oil, find themselves, an economic disaster so far reaching as to involve all the people of Texas must naturally follow."

The governor's proposal followed an attack by Commissioners Terrell and Smith on the governor's statement that "the railroad commission either can not enforce the existing con-

(*Continued on page 73*)

Personal Mention—Men You Know

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Donald E. Dickey is now associated with the engineering department of Broderick & Bascom Rope Company, St. Louis, and will give his attention particularly to assisting operators with their rope problems in California. For a number of years he was assistant engineer of tests for General Petroleum Corporation and was secretary of the A.P.I. standardization committee on wire rope and cordage.

WILLIAM REINHARDT

For several years vice-president in charge of production for Shell Oil Company, and vice-president of the California Oil and Gas Association, recently was elected manager of the Kettleman North Dome Association. To accept, he resigns his post with Shell Oil Company.

William A. Clark, petroleum engineer for The Texas Company of California, has been transferred from the Los Angeles basin district to Fellows, California.

Edwin Higgins, managing director of the California Oil and Gas Association, addressed the monthly meeting of the A. I. M. E. at Los Angeles March 12 on the importance of the oil industry to California's prosperity.

O. J. Olson, formerly a director, has been elected president of North American Oil Consolidated, to succeed T. J. Kierulff. H. G. McKannay of San Francisco has been elected vice-president to succeed H. B. Sperry.

Edgar H. Wilson, sales manager of Globe Oil Tools Company, Los Nietos, California, is now on an extended business trip for the company and will visit all the major oil fields in Texas and the Mid-Continent districts during his tour. He left Los Nietos March 7 and expects to be away three or four weeks.

L. L. Langworthy, for the last several years an engineer with the pipe line department of Midwest Refining Company at Casper, has recently resigned to become a member of New York Oil Company's and North Central Gas Company's pipe line and engineering department. His headquarters will continue to be in Casper.

Howard N. Spofford, Shreveport geologist, is convalescing in Shreveport from a fractured leg sustained when his automobile overturned recently near Scottsville, Texas. The accident occurred when he attempted to pass two cars on the highway.

Martin Van Couvering, consulting petroleum engineer of Los Angeles, has been appointed a member of the Committee on Petroleum Economics, which is sponsored by the Federal Oil Board.

C. H. Lane, president of the Thrift Corporation of Houston, is spending two weeks in California. He was accompanied by Mrs. Lane, making the trip by automobile.

ROY E. COLLOM

Vice-president, Kettleman North Dome Association and manager of Continental Oil Company of California.

A. C. Rubel has been appointed manager of field operations for Union Oil Company of California. He started with the company several years ago as petroleum engineer and has climbed steadily to his present position.

Dr. W. D. Moriarity, professor of economics at the University of Southern California, addressed the Petroleum Accountants Society of Los Angeles, March 12, on "The Advantages of a Commodity Exchange to the Oil Industry."

William Groundwater, manager of transportation of the Union Oil Company since 1923, last month was appointed to the position of director of transportation. In his new post, he is charged with responsibility for all operations of pipe lines and storage, steamships and marine equipment, and tank cars. As director of the Producers Transportation Company, director of the Outer Harbor Dock and Wharf Company of San Pedro, director of the Pacific American Steamship Association, director of the Los Angeles Steamship Association, member of the executive committee of the Marine Service Bureau, and in his affiliations with the American Committee of Lloyd's Register of Shipping, Mr. Groundwater has taken an active interest in transportation problems and has particularly concerned himself with marine shipping. Mr. Groundwater has come up through the ranks during his 20 years service with Union Oil Company, his first job being construction work on the Producers Pipe Line at Creston. He later worked at the Creston station pumping plant as engineer and was then brought to San Luis Obispo and placed in charge of the mechanical equipment and personnel of the Producers Pipe Line. Mr. Groundwater was elected to superintend the operations of the Producers Pipe Line and the newly completed Lompoc Pipe Line in 1913. In 1922 he was chosen assistant manager of transportation and assumed charge of the department the following year. This position he has held until his appointment as director of transportation last month.

WILLIAM GROUNDWATER

News From California Fields

BRAD MILLS, *Staff Representative, Los Angeles, California*

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Curtailment an Economic Necessity, Court Rules

Los Angeles. — A decision of much importance was handed down in Superior Court in Los Angeles this week, Judge L. R. Yankwich having ruled that curtailment of oil production is an economic necessity and that the lessee has the right to curtail production in the face of an oversupply of oil, even though it may reduce the income of the landowner. The decision was in favor of The Texas Company of California, which was charged by the Vedder interests with operating a 40-acre lease in the Mt. Poso field at less than the maximum rate, so that terms of curtailment could be met.

The landowners contended that the terms of the lease called for full operation and sought to cancel the original contract. The Texas Company countered with the claim that curtailment was more important than the mere maximum operation of the lease in the face of a surplus of oil of the grade produced. The decision seems to establish necessary curtailment ahead of previous contracts, although there may be an apparent failure to produce leases in accordance with the original stipulations. Judge Yankwich ruled that conditions within the industry largely determines whether it is prudent to push the development of leases to the fullest extent, and that while a reduction in production may reduce the income of the landowners, it reduces that of the operator even more.

Playa del Rey Development Devoid of the Spectacular

Los Angeles.—The action of the Playa del Rey field has not been radically different from that of other Los Angeles basin townlot fields, except that development has been less spectacular, the peak production lower and the decline somewhat slower than in some of the other closely drilled areas. The fact that it seldom requires much time to get action is one of the factors prompting the rush to develop such small leases. The usual course of drilling witnesses very large completions during the early stages of field work, but here again Playa del Rey fails to parallel the history of such townlot fields as Long Beach, Alamitos Heights and Santa Fe Springs. Not one outstanding well has been completed to increase interest in a field which was already worked up by glowing promises of various types of promoters. The shallow zone failed to show a spectacular yield and the deep sand has not produced uniformly. About 160 wells have been completed in both zones, with production hovering around 28,000 barrels.

The number of drilling wells remains around 25 and there is a likelihood that this number will be maintained for a few weeks. A few scattering tests in the townlot district and a more business-like effort to develop the larger leases in both zones will keep the field in the active class for some time. The past history of townlot fields in the Los Angeles basin has been the alternating decline and flaring up of activity until various zones have been developed. Playa del Rey may yet fall within this class, but the deep sand seems the more likely formation to revive interest. Promoters and converted real estate operators are not working under the high pressure which characterized the early period of development.

Barnsdall Oil Company's Burks 7, which blew out at 3140 feet, has been killed and will be deepened. A packer was run into the hole around the Kelly and the flow of gas mud and gas thrown to flow lines. Heavy mud was pumped in and the well killed. The blowout was spectacular but not especially significant.

Union Oil Company is drilling below 3700 feet in Vidor 1, a test in the southeast sector and outside the present producing limits of the field, and has cored streaks of shale which showed some gas and oil. This company controls nearly one-half of the probable producing acreage but has drilled only a few wells on its largest lease.

Average initial production of the three most recent deep zone completions was not far below the average of several months ago, but they were finished where little development had been done. This formation is not uniform and has a tendency to thin out toward the top of the structure. It may be that the greater penetration possible on the flanks is caused by dipping of the structure, however, rather than an unconformity.

Average production per well for the entire field has dropped to about 180 barrels and the extended decline will necessarily be slow.

Bakersfield, Calif.—Failure to obtain a water shutoff in both deep tests in the Lost Hills field definitely placed the district in the doubtful class, at least as far as production from the top of the formation now being tested is concerned. George F. Getty's Lincoln Drilling 1A, Section 12-26-20, was tested for a water shutoff with the 8⅝-inch casing at 3768 feet, but proved to be wet. The formation took water under pressure and a second cementing job was completed. Universal Consolidated Oil Company's No. 49 probably will not make a producing well at the present level and may be deepened from 5308 feet. This well has been tested at various levels below 5000 feet and is beginning to assume a very doubtful outlook. The high water pressure above the top of the zone and the water flow below the point at which the first test was made lend a discouraging aspect to this test.

Ventura, Calif.—Abandonment a week ago of Prairie Oil & Gas Company's Sexton 1, a deep test just southeast of the Ventura Avenue field, helps to establish the field's reputation as a perfect structure. Two years ago, however, M. K. T. Oil Company completed a well south of the supposed producing limits of the field and there were indications of faulted conditions. Sexton 1 was drilled on the theory that an extension to the southeast might be found. The well was drilled to 8778 feet and was the deepest test ever drilled in Ventura County.

Field Work on North Dome Shows Continuous Increase

Coalinga, Calif.—Expiration of the present curtailment agreement on July 1, activity of the Kettleman North Dome Association and the desire of operators on fee land to develop their holdings are reflected in the attitude of the various interests on the North Dome at Kettleman Hills. The gradual rise in field work has increased the number of active projects to 24 and there is evidence that several more wells will be under way within a few weeks.

Deepening of several wells shut down on top of the Temblor is being considered and it will require only a short time to complete such tests.

The most recent resumption of operations was in George F. Getty's Armstrong 6-1, which was shut down late in 1929 at 6725 feet. Top of the Temblor zone was found at 6712 feet. Shell Oil Company is drilling in the Temblor zone at 7385 feet, after finding the objective formation at 7300 feet. This well is located on fee land and is on the flank of the structure. Petroleum Securities Company has reached 5500 feet in Burbank 1, a Middle Dome test on Section 30-23-19. It has been difficult to correlate the formations found in this well with those found on the North Dome.

North Belridge Producing Area Within Narrow Limits

Bakersfield, Calif.—The North Belridge field probably will prove to be a narrow producing area, but determination of one or two operators to develop holdings at once will maintain field activity until the approximate producing limit is found. Failure of one well and the doubtful outlook in two others on the flank of the structure have combined to limit drilling somewhat, although several tests might be classed as outright wildcats.

Belridge Oil Company, discoverer of the deep zone, is most active with five drilling wells and one idle test. Union Oil Company probably will complete the second producer in the Temblor, having cored a good body of oil sand below 5000 feet in Belridge 17. This well is now drilling at 5565 feet and will be tested within the next two weeks.

Ohio Oil Company is making a series of preliminary tests in Bloemer 1, an edge well, but the most recent effort at 5920 feet failed to reveal a promising sand condition. More hole will be made and the tests continued. This well is located considerably outside the producing limits of the shallow zone and may fall outside the producing range of the Temblor.

Interest at Long Beach Divided Among Districts

Long Beach, Calif.—Interest in the Long Beach field is about evenly divided between the south flank and Los Cerritos districts, while the intermediate or shallow zone in other parts of the field has a good following. Concentration on the 5000-5300-level has proved a very successful venture and this part of the 5000-foot producing horizon is yielding unusually good wells. This was about the deadline of drilling during the earlier development, and the last cycle of drilling from 1928 to the present time witnessed completions between 5800 and 8000 feet.

Few wells were completed between 5000 and 5500 feet at any time, and practically none were finished during the past three years. There was a belief that poor shutoffs near the former producing limits had allowed water to enter the formation. For other reasons the 5000-6000-foot level was neglected. Completion of a few good wells at a point just below the former maximum depths and considerably above the minimum depths of the most recent deep drilling campaign has revealed the possibilities of the shallower strata.

A gradual "feeling around" for levels not over-drilled has been in evidence for several months. With such a thick body of producing sand, a fortunate completion at one of several levels often yields good completions. Such a high average initial production could be obtained only from a field having a record thickness of producing formation.

Deep Drilling Campaign is Likely at Huntington Beach

Los Angeles.—Several operators at Huntington Beach are considering a deep drilling campaign, in the event one of the two wells drilled below 7000 feet comes in as a commercial producer. Leasing activity was more or less under cover for a time, but outright offers for well located leases are being made. The miniature leasing boom is based on the assumption that the deep zone below 7000 feet will produce commercially, but there is yet no positive evidence that such is the case. Superior Oil Company's Fee 1, the first well to reach 7000 feet in this part of the field, is still shut down at 7490 feet. Suspension of operations in this well has been interpreted as an admission that a good oil sand has been found, but only a production test will reveal its true value. W. E. McCaslin's Transport 17, a deep test near Olive and Twenty-First Streets, is drilling at 7350 feet, with the formation showing gas and oil.

Wilshire Oil Company is considering the deepening of a few producing wells, but has made no announcement as to future plans. Operators in the field fear that the deep zone may not produce commercially, while producers in other fields fear that it will. A flood of oil from a new zone here would weaken the crude market, but it might be the means of retrieving losses incurred during previous waves of development.

Santa Cruz, Calif.—Streaks of oil sand and strong gas showings in Wellton Oil & Gas Company's Galletly 1, a wildcat test located north of Watsonville, has attracted the attention of several large operators, but pending the outcome of a production test at 2880 feet, little leasing has been done. A string of 6⅝-inch casing was cemented at 2665 feet and immediately above more than 125 feet of promising sand. This district has been looked upon with favor by some geologists for some time, but the limited development gives little clue as to its possibilities. A gas field at this location probably would be more valuable than a small oil field.

Los Angeles.—The Kettleman North Dome Association, the agency recently organized to take over nearly one-half of the acreage on the North Dome at Kettleman Hills on a unit plan of operation, is considering the construction of a vast pipe line gathering system to receive and transfer the oil produced by the organization. The size of the field and necessity for providing outlets to the trunk pipe lines nearby will eventually lead to the laying of all sizes of pipe from two to 12 inches.

Oklahoma--Kansas Field Notes

FLOYD SWINDELL, *Staff Representative, Tulsa, Oklahoma*

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Oklahoma Daily Production Shows 6955-Barrel Increase

Tulsa.—Estimated daily average production for Oklahoma was 508,605 barrels during the past week, an increase of 6955 barrels over the week before. The increase came from the Oklahoma City pool, where underproduced wells are being allowed to produce to capacity and from the Seminole district where a 10-day potential gauge has been taken on six pools of the major group.

A brief inspection of drilling reports from the various Oklahoma districts forcefully emphasizes the statement that drilling is being curtailed. There are not now as many drilling wells in the entire state as were listed for the Oklahoma City pool alone during the middle of 1930.

Average daily production from the Oklahoma City pool for the week ending March 13 was 129,000 barrels as compared with a daily average pipe line demand of 98,000 barrels for the same period, indicating that an average of 30,000 barrels daily went to storage. On the day following the end of this period pipe line runs were 144,001 barrels, an all time record for the pool. Runs have been abnormally high since the ruling that underproduced wells would be allowed to produce full capacity so far as could be cared for by purchasers and storage.

Of the 746 wells which have been completed, 26 have been plugged back after the lower part of the producing horizon commenced making excessive amounts of water, 20 wells are now being plugged back, and 700 are producing at the depths of their original completions. There are approximately 42 locations, 51 drilling wells including those shut down waiting on cement to set, and 11 tests shut down indefinitely.

Eight wells were completed during the past week for an actual total initial gauge of 38,411 barrels which totals in excess of 275,000 barrels when calculated on a 24-hour basis. Phillips Petroleum Company completed the largest well of the week when its Boultinghouse 1, NE NW, Section 10-11n-3w, came in flowing at the rate of more than 2252 barrels an hour and tanked 9011 barrels during its four-hour gauge. The well was equipped with a four-inch choke and flowed under a back pressure of 200 pounds. Production is coming from 181 feet of Simpson formation topped at 6326 feet and penetrated to 6505 feet.

The smallest of the group was Indian Territory Illuminating Oil Company's Ferguson 1, NWc Section 23-11n-3w, on the southwest edge of the older part of the pool. Broken sand was encountered at 6435 feet and the Simpson formation penetrated to 6630 feet where the well flowed 1216 barrels in eight hours along with 3,500,000 cubic feet of gas. Phillips Petroleum Company's Danwood 1, SW NE NE Section 3-11n-3w, cut out connections and was shut in after flowing 5494 barrels in 2½ hours from 148 feet of Simpson topped at 6262 feet. One location east and the third location south the same operator completed Crean 1, SEc NE Section 3-11n-3w, for an initial production of 5205 barrels in four hours flowing through a four-inch choke under 150 pounds back pressure. Top of the Wilcox was encountered at 6261 feet and penetrated to a total depth of 6358 feet still in sand.

Phillips Petroleum Company announced the only location of the week when it staked Perry 1, 132 feet south of the north line and 1315 feet west of the east line of the SW section 10-11n-3w. The test is located on Block 3, Lot 5 on Schillings Addition.

Hopes of New Seminole District Pool Dashed

Seminole, Oklahoma.—Hopes of a new pool in the Seminole district received a set back when J. E. Crosbie et al's Brown 1, NE NW SW, Section 2-9n-4e, approximately three miles west of the Earlsboro townsite pool, found water in the Wilcox and is to be abandoned at 4593 feet. Top of the Wilcox was encountered at 4587 feet after having a small show of oil in upper Simpson at 4579 to 4581 feet. On the basis of Viola lime correlations the well was not too low structurally to have been a producer. Top of Viola was reported at minus 3378 feet, 61 feet higher than a dry hole south of it in Section 11-9n-4e. However, it was more than 75 feet lower than wells on the west edge of the Earlsboro townsite pool. Structurally the well compares favorably with several wells which have been drilled to the north and south but the whole area appears to be too low to produce when a comparison is made with pools of the Seminole district.

A second wildcat test in the Seminole district now carries the burden of a prospective discovery well. Lippa Drilling Company et al's Phillips 1, SWc SE Section 8-9n-6e, had top of the Mayes lime at 3825 feet, Woodford shale at 3955 feet, Misener sand at 4069 to 4070 feet, and Hunton lime at 4070 to 4075 feet. As compared with Minnehoma Oil Company's Noe 1, initially an 8,000-barrel well in the NW, Section 17-9n-6e, it is 15 feet low on the base of the Woodford. By comparing the same wells it is noted that the Phillips 1 encountered a thinner section of Woodford which reduced the structural difference noted on top of the Mayes. Neither the Misener nor the Hunton are dependable markers and considerable interest will attend entrance of the drill into top of the Simpson formation at which point a structural check can be made. Assuming correlations on the base of the Woodford to be correct, the well has a good chance of obtaining production.

AN APOLOGY TO BAKER OIL TOOLS, INCORPORATED

Through one of those errors which can only be explained by appealing to the old adage "It is human to err—," The Oil Weekly for March 13, page 83, in a special article "Wall Scraper Proves Aid in Deepening Operations at Refugio," referred to the wall scraper as being "made by Quaker Oil Tools, Incorporated, Huntington Park, California." It is known to all the oil world (with the apparent exception of our proof reader) that Baker Oil Tools, Incorporated, is located at Huntington Park, California, and to them we extend this apology.

Tatums Pool Activity Now Is Settled to a Minimum

Ardmore, Okla.—Activity in the Tatums pool in Carter County has settled to a minimum after leading Southern Oklahoma during 1930 and the first two months of 1931. Four wells are drilling and one shut down waiting on cement to set on the last string of casing. Amos Drilling Company's Hooks 2, SW SESE Section 13-1s-3w, on the north edge of the pool, set 8¼-inch casing on top of broken oil sand topped at that depth and drilled 2108 feet, at which point the sand became solid; total depth is 2199 feet.

One mile north of production in the older portion of the pool, Magnolia Petroleum Company is drilling below 4100 feet in its R. F. McCrory 1, SE SE SE Section 10-1s-3w. No information has been given out concerning the depth to which this test will be drilled. However, it should reveal some interesting data if continued below 5000 feet. One or two wells in the Graham pool to the south were drilled several hundred feet below the regular producing horizons and encountered nothing but blue and black shales thought to be Caney.

George Pace is shut down waiting on cement to set in his Bush 7, NW NE SE NW Section 3-2s-8w, on the southeast side of the old Oil City pool. Casing was set after broken sand had been encountered at 1593 to 1629 feet and solid sand at 1629 to 1637 feet. It is a south offset to his Bush 6 which was recently completed for 15 barrels on the pump from sand at 1637 to 1651 feet.

Crane and Rankin are drilling below 3095 feet in their Adkins 1, NE NE SE Section 14-1n-9w, about eight miles northwest of Duncan. Sands showing oil have been logged at 2980 to 2991 feet and an upper gas sand was encountered at 2880 to 2925 feet. Junior Oil Company's Mrs. A. M. Thompson 1, NE SW SE Section 1-1n-7w, four miles east and five miles north of Duncan, has been abandoned at 3325 feet.

Kansas Daily Production Decline Small for Week

Wichita, Kansas.—Estimated daily average production for the past week took a slight drop when all pools in Kansas produced 111,150 barrels as compared with 112,115 barrels the week before. New activities hit the lowest point in two years when only four locations were staked, two of which were in Greenwood County and one each in Sedgwick and Stevens Counties. During the first two months of 1931 new work in Kansas has been boosted by the large number of tests started in the Ritz pool of McPherson County which now has more drilling wells than any other area in that state. Impetus was added to the campaign because of the large number of leases which were to expire early in the year. Most of the expirations have been forestalled by drilling and offset requirements probably will largely govern new starts in the area for the next few months. Several important wildcat tests are being drilled and discovery of new pools is not unlikely. However, in the absence of any new discoveries, indications point to a subnormal drilling campaign for the remainder of the year.

The Ritz pool now has more than 50 operations of which 42 are active and the remainder rigs and locations. There are 39 completed oil wells and 27 gas wells, including those completed in what is locally called the Decker gas area, in 19s-2w. Olson Drilling Company and Shell Petroleum Corporation completed their Dixon 1, SE SE Section 3-19s-2w, as a 12,000,000-foot gasser in chat at 2927 to 2956 feet. This well was drilled from top to bottom with rotary tools and operators experienced considerable difficulty through the loss of returns at several points from 2400 feet downward. Ruch Drilling Company and Shell Petroleum Corporation's Johnson 1, CSE NW Section 10-19s-2w, slightly over a half-mile southwest of the Olson-Dixon 1, had chat from 2921 to 2941 feet and gauged 4,000,000 feet initially.

The most important development of the week was the completion of Helmrick-Payne and Shell Petroleum Corporation's Keohn 1, CSE Section 12-20s-2w, on the southeast edge of the pool. This well was originally completed about a year ago as a 497-barrel chat producer. Subsequent development led operators to deepen to Viola and Wilcox horizons. A show of oil and 1000 feet of water were encountered in Viola lime at 3410 to 3414 feet at which depth it will be abandoned. This apparently marks the southeast limit of production in the deeper zones.

Production at Eastborough Shows 50 Per Cent Decline

Wichita, Kansas.—Thirty-five wells in the Eastborough pool, Sedgwick County, Kansas, are now making approximately 7500 barrels of oil daily along with considerable amounts of water. This is a decrease of about 50 per cent below the peak production obtained during the middle and latter part of 1930. All wells in the pool are making some water and several are scheduled to be abandoned because of the small amount of oil being produced with large quantities of water. Fisher and Lauck's Trustee lease, 160-acre tract in the SE of Section 19-27s-2e, and Vickers Petroleum Company and George W. Hinkle's Keys lease, consisting of 80 acres in the W½ NE Section 30-27s-2e, continue to be the best producers in the pool. The former is now making 2000 to 2100 barrels daily and the latter around 1800 barrels daily. Production by leases is as follows:

Lease—	Barrels Daily
Derby Oil Company, Eastborough Estate, Section 19-27s-2e	358
Siegel Brothers, Soukup, Section 19-27s-2e	112
Ramsey, Davies, Section 17-27s-2e	272
National Refining Company, Murdock, Section 18-27s-2e	435
Derby Oil Company, Cloud, Section 19-27s-2e	198
Derby Oil Company, Rimel, Section 30-27s-2e	233
E. B. Shawver, Fee, Section 19-27s-2e	170
Blankenship Petroleum Company, Shafer, Section 30-27s-2e	700
Blankenship Petroleum Company, Schott, Section 24-27s-1e	30
Continental Oil Company, Freeman, Section 19-27s-2e	40
Work-Covell, Freeman, Section 19-27s-2e	75
Magnolia Petroleum Company, Wheeler, Section 19-27s-2e	500
Fisher-Lauck, Trustee, Section 19-27s-2e	2,070
Vickers Petroleum Company-G. W. Hinkles, Keys, Section 30-27s-2e	1,800
Fisher-Lauck, Shafer, Section 30-27s-2e	438
	7,431

Stearns and Streeter's Tobin 1, CSW SE NE Section 5-27s-2e, about 2½ miles northeast of the pool, is a dry hole after finding water in the chat, Viola and Wilcox horizons. Top of the chat was encountered at 2970 feet and a hole full of water at 2988 to 2992 feet in the chat. Six-inch casing was set at 3022 feet to shut off chat water and a hole full of water encountered in the Viola lime at 3315 to 3317 feet. Wilcox sand was logged at 3348 to 3352 feet and the test abandoned at the latter depth. There is a total of eight operations, one of which is an old well being drilled deeper.

Sampson et al's Sudendorf 1, NE SE Section 30-14s-2w, less than a mile southeast of the town of Salina, had a show of oil and water in Viola lime at 3265 to 3400 feet and a hole full of water in the Wilcox at 3442 to 3470 feet. Siliceous lime was encountered at 3472 to 3510 feet and the test abandoned at the latter depth. This is the third dry hole in the southwestern part of 14s-2w.

Seminole Gauging Shows Excess Over Potentials

Seminole, Oklahoma.—The contention of many of those who oppose proration that pools in the Seminole district would fall far short of their potentials if placed on a gauge over a considerable number of hours, has been poorly borne out by a recent 10-day gauge of six pools of the major group.

For the past several months Ray Collins, state umpire, has applied a three per cent per month decline factor to pools of the Seminole district and it has been steadily maintained by some that this percentage was too low. Potentials for May, 1930, were estimated at 140,720 barrels daily from the six pools first to go under the 10-day gauge. During the first five days Earlsboro, Seminole City, East Seminole, Maud, Searight, and St. Louis, averaged 118,000 barrels, approximately 12,000 barrels in excess of the potential calculated at a three per cent per month decline. The second group of pools went on the 10-day gauge at 7:00 a.m., March 16. Included in this group are the East Earlsboro, Sasakwa, Bowlegs, Mission, Little River, East Little River, and the settled area of the Carr City pool. It is planned to take potential gauges in the same manner on all pools of the Shawnee-Holdenville region and perhaps on all flush pools in the state where there is ample storage to permit 10 days of maximum production, a requirement which eliminates such a test for the Oklahoma City pool.

Carter Oil Company's Coker 8, NE NE SW Section 2-8n-5e, in the north edge of the Carr City pool, had 1200 feet of oil in the hole from Wilcox at 4219 to 4231 feet, the total depth when last reported. The same company's Rogers 5, NE NW SE, east offset to Coker 8, topped the Simpson dense at 4134 feet and was swabbing 100 to 175 barrels daily from Hunton lime. Total depth is 4159 feet, approximately 40 feet above the point at which Wilcox should be expected.

Limits of Konowa Area To be Further Defined

Konowa, Oklahoma.—The south end of the Konowa structure, although apparently defined several months ago by the completion of two deep dry holes, should be further outlined within the next few days when four tests now drilling in that sector should obtain production or be abandoned as dry. Magnolia Petroleum Company's Harjo 2, NW SW SE Section 29-6n-6e, west offset to a 3590-foot dry hole, has 1500 feet of water in the hole at 2480 feet after setting 6⅝-inch casing at 2438 feet.

Pace Petroleum Company et al's Caesar 1, SE NW SE Section 29-6n-6e, north offset to the same dry hole, has a show of oil at 2518 to 2543 feet and will set 6⅝-inch casing at 2500 feet. A show of oil was encountered while coring at 2479 to 2481 feet in sandy lime and a small show of oil at 2496 to 2497 feet in broken sandy formation.

Magnolia Petroleum Company's Wood 3, SW NE SW Section 29-6n-6e, cored dry sandy shale at 2420 to 2430 feet and was drilling at 2605 feet without showing. This test was measured 14 degrees off vertical at 2000 feet. Droppleman et al's Deavers 1-A, SE NW SW of the same section, drilled the plug and cleaned out to bottom after setting 8¼-inch casing at 2683 feet.

Attention was directed to this end of the pool when Magnolia Petroleum Company completed its Wood 2, SE NE SW Section 29-6n-6e, for 7315 barrels in 15 hours early in December, 1930. One week later Gypsy Oil Company completed its Charity 1, in the same quarter section, flowing an estimated 60,000,000 cubic feet of gas.

▼ NEW MEXICO - ROCKY MOUNTAIN AREA ▼

Cut Bank Gas to Be Piped To Three Montana Cities

Helena, Mont.—A joint natural gas pipe line project, to furnish gas to this city along with Butte and Anaconda, has been formulated by interests identified with Louis B. O'Neil, Montana Power Company, and Anaconda Copper Company. This group proposes to bring the gas supply from the area north of Cut Bank which has to date been proved for small production. It is presumed that a large program of wells will have to be drilled immediately, as the work on the line is supposed to start early next month, to be completed by January 1, 1932.

Make Important Discovery Heart of Big Muddy Field

Casper, Wyo.—What would appear to be the indication of an important discovery in the Big Muddy field, in Converse County, Wyoming, is the showing which Ohio Oil Company has in its Jones 5, in the heart of the field. The well is shut down in a heavily saturated sand in the top of Lakota, waiting a control head being shipped from California. It will be several days before work will be resumed on the test. This well is valuable because of its exploration of deeper horizons in Big Muddy which has proved to be one of the most consistent producers in this territory.

Rawlins, Wyo.—Department of the Interior has granted permission to William Schupbach, Raye Dane et al, to deepen their Mahoney Dome well from the Morrison, in which it is now standing, to the Sundance, where good production is anticipated. This well was drilled a few years ago by Hughes Royalty Company; it had showings in the Muddy, Dakota, and Lakota sands, and a total open flow of 12,000,000 feet of gas. Sundance sand, the next objective, is expected to be about 150 feet thick.

Billings, Mont.—It is reported here that Resolute Oil Company's wildcat well on the Badger Basin structure, in Park County, Northwestern Wyoming, is held up at 8345 feet with a fishing job. This is the deepest well ever drilled in the Rocky Mountain States; it is a cable tool job. Production was found in the first Frontier at 8250 feet, but because of the extreme depth, it was not judged commercial. Considerable gas was also encountered in that sand.

Red Lodge, Mont.—The Dry Creek field, Southern Montana, which has hitherto had but Ohio Oil Company operating in it, has a new entrant recently with the advent of the test to be drilled by the Charles E. Orchard interests of Denver, for the Joe Cook-Mark U. Webber group which recently purchased Beartooth Oil Company's holdings in the field. Test is to be drilled by rotary.

East Central Texas Field Notes

H. H. KING, *Staff Representative, Fort Worth, Texas*

▼ ▼ ▼

Rusk and Gregg County Rail Shipments Reach Big Total

Henderson, Texas.—Keeping pace with the large and rapid expansion of tank car loading facilities which has been in progress and which is still under way, railroad shipments of East Texas crude oil assumed greater proportions as the past week progressed; and on March 12 the tank car traffic attained a peak daily volume of approximately 77,000 barrels, with indications pointing to repeatedly higher daily records for the immediate future, along with completions of new loading racks and enlargement of older ones.

It is regarded as altogether possible that this rail movement of crude from the fields of Rusk and Gregg Counties may exceed 150,000 barrels daily before the end of March, in the event it is available.

Whether or not the traffic will actually reach such proportions will depend, of course, upon both the potential supply of oil and the demand for it. But impending completions of new wells indicate steady increases in production, while the oil has been finding ready markets at the prices for which it has been selling.

The I.-G.N. railroad cuts across the Kilgore area, and farther south, at Overton, branches in two directions, the main line continuing on to Arp and passing not far from the west edge of the Joiner field, while the branch line from Overton to Henderson lies within three miles of the east side of the Joiner field.

The Missouri Pacific lines, consequently, have been handling all the shipments from the Joiner (or Henderson) and Kilgore pools, representing a high percentage of all Rusk-Gregg shipments, the only other tank car shipments as yet having been those of Arkansas Fuel Oil Company and associates from the Lathrop area immediately northwest of Longview, moving over the Texas & Pacific Railroad to Shreveport, at an average rate of about 6000 barrels daily.

On March 14 the Missouri Pacific moved out 354 cars of crude, which, figuring an average capacity of about 200 barrels per tank car, represented 70,800 barrels. Through March 15 the company had handled 5085 tanks cars of crude from the Joiner field and 2223 cars from Kilgore, a total of 7308 cars, or (on the basis of 200 barrels per car) about 1,461,600 barrels.

There are several hundred oil company tank cars in use,

East Texas Tank Car Racks

(Showing facilities for loading railroad tank cars with crude from fields of Rusk and Gregg Counties)

COMPLETED OR UNDER CONSTRUCTION

Owner—	Railroad	Shipping point	No. tracks alongside rack	Rack capacity in cars	Rack Location
RUSK COUNTY:					
American Petroleum Company	I.-G.N.	Reeds	2	50	6 mi sw of Kilgore.
Beacon Oil & Refining Company	I.-G.N.	Poindexter	1	26	4 mi nw Henderson; J. H. Allen farm, Taylor Brown Sur.
Central Pipe Line Company	I.-G.N.	Overton	1	25	1 mi ne Overton; J. H. Beasley farm, T. C. Lloyd Sur.
Crown Pipe Line Corporation	I.-G.N.	Poindexter	2	30	5.3 mi se of Overton; Friar land, adjacent Sinclair rack.
Rusk County Pipe Line Company	I.-G.N.	Poindexter	2	36	6.5 mi se of Overton; Robertson farm; H. Henderson Sur.
Gulf Coast Pipe Line Company	I.-G.N.	Poindexter	2	50	5 mi se of Overton; Thomas Smith Sur., near station Poindexter.
Houston Oil Company	I.-G.N.	Kilgore	2	40	2½ mi sw Kilgore; Peterson (Jones) lease, 10-acre tract, I. Ruddle Sur.
Humble Oil & Refining Company	I.-G.N.	Kilgore	2	75	3 mi sw Kilgore; northwest corner J. N. Peterson lease, Isaac Ruddle Sur.
Marine Corporation	I.-G.N.	Kilgore	1	25	1.9 mi sw of Kilgore; on n end of Nat Bean 54-ac. lease, I. Ruddle Sur.
Inland Waterways Pipe Line Co.	I.-G.N.	Poindexter	1	15	6.2 mi se of Overton.
Panola Pipe Line Corporation	I.-G.N.	Poindexter	1	25	6.5 mi se of Overton; N. Carey farm, G. W. Guthrie Sur.
Petroleum Marketing Corporation	I.-G.N.	Poindexter	1	23	6.2 mi se of Overton; N. L. Marwill farm, B. Smith Sur.
Sinclair-Texas Pipe Line Company	I.-G.N.	Poindexter	2	40	6 mi se of Overton; W. L. Friar's farm, H. Henderson Sur.
Sabine Oil & Pipe Line Company (L. N. Gray).	I.-G.N.	Reeds	1	15	6 mi sw Kilgore.
Woodley Petroleum Company	I.-G.N.	Kilgore	1	25	3 mi sw of Kilgore.
J. D. Wrather, Joe Butler, John Calhoun	I.-G--N	Overton	1	25	North of town of Overton.
GREGG COUNTY:					
Arkansas Fuel Oil Company	T. & P.	Willow Springs	2	44	South of railroad on Stevens and Lawrence farms, I. Skillern Sur.
Independent Pipe Line Company	T. & P.	Willow Springs	2	50	North side railroad, opposite Arkansas Fuel Oil Company rack, (Building).
Simms Oil Company	T. & P.	Willow Springs	..	30	On Toler 13.4-acre tract, north side railroad, due east Arkansas Fuel rack.
John W. Olvey et al	I.-G.N.	Footes	1	30	3 mi sw of Longview.

PROPOSED OR AUTHORIZED RACKS

RUSK COUNTY:					
Sinclair-Texas Pipe Line Company	I.-G.N.	Kilgore	2	50	2.8 mi sw Kilgore; just n of Humble rack.
Warner-Quinlan Company	I.-G.N.	Kilgore	1	30	1¼ mi sw of Kilgore.
GREGG COUNTY:					
East Texas Refining Company	Santa Fe	Longview	..	..	Authorized.
J. C. Falvey-Bockley et al	T. & P.	Willow Springs	2	40	Proposed
H. M. Johnson et al	T. & P.	Willow Springs	..	..	Proposed
Shell Petroleum Corporation	T. & P.	Willow Springs	..	..	Proposed
SMITH COUNTY:					
Houston Oil Company	Cotton Belt	Amigo	..	..	Proposed; on 20-acre site in K. H. Muse Sur., 7 mi ne of Tyler, immediately adjacent to north boundary of town of Amigo.
Tyler Pipe Line Company	Cotton Belt	Tyler	2	60	Authorized.

as well as a large supply owned by tank car companies, such as General American Tank Car Company and North American Tank Car Company.

The accompanying tabulation shows present status of tank car loading facilities in the East Texas areas. It shows that loading racks already completed or under construction will afford total loading capacity for Rusk and Gregg Counties of 690 cars (or roughly 138,000 barrels) at a time. Potential shipping facilities might reasonably be figured higher than these numbers, however, as some shippers have been loading twice daily.

Aside from the racks built or building, there are others proposed or authorized which promise to afford additional loading facilities for more than 250 cars at a time.

Humble Oil & Refining Company will have largest shipping facilities among all marketers in the East Texas fields upon completion of its Kilgore area rack. Provision will be made in the final arrangement for two tracks, one on each side of a loading rack, sufficiently long that one track will hold approximately 40 cars, while the other will have capacity of 35 cars. Another track is being used for storage and for shipment of supplies, a warehouse being located alongside it. The tank car loading facilities are being increased through lengthening of the two tank car tracks, and the additional trackage is expected to be completed by the end of this week. Total capacity of the Humble Oil & Refiining Company rack heretofore has been 45 cars, but the company has been making two shipments daily, or 90 cars per day, part of the time.

Houston Oil Company, which originally began shipping from the Kilgore area with only a 20-car rack, is now able to load 40 cars at a time, a second track having been built alongside the rack, and the rack is being operated at capacity.

Houston Oil Company also proposes to increase facilities by building a combination six-inch and four-inch screw coupled pipe line from the Kilgore field to a 20-acre site which it has acquired alongside the Cotton Belt Railroad immediately north of the town of Amigo, Smith County. On that 20-acre tract, which is in the K. H. Muse Survey, and which adjoins the Amigo townsite on the north, Houston Oil Company is building two 80,000-barrel steel tanks. It is also contemplating plans for a tank car loading rack on the site, but no work had been started on the rack early this week. At that time the right-of-way for the pipe line was being cleared. The route of the line will be along an air line from the company's loading rack and storage tank site in the Kilgore area. One pump station, at Kilgore, is proposed for the pipe line. The town of Amigo is about seven miles northeast of Tyler.

Simms Oil Company will soon break ground in Gregg County for a 30-car rack on the Toler 13.4-acre site on the north side of the Texas & Pacific Railroad and due east of the Arkansas Fuel Oil Company rack, with a three-mile four-inch line extending from that rack site to its Tenery lease, a short distance due east of the Gregg County discovery well on the Lathrop farm.

Independent Pipe Line Company is building a 50-car capacity rack on the north side of the Texas & Pacific Railroad opposite Arkansas Fuel Oil Company's rack.

Another late development in the expansion of shipping facilities in Gregg County is the work which is going forward on John W. Olvey et al's 30-car rack on the I.-G.N. Railroad, three miles southwest of Longview.

Mid-Kansas Oil & Gas Company is building a materials spur track on the I.-G.N. railroad one mile northeast of Henderson, and plans to proceed with an extensive drilling campaign. The company can extend the materials rack to afford tank car loading facilities. The Woodley Petroleum Company tank car loading rack which is listed in the accompanying table had a similar history, originating as a materials rack but being extended later to accommodate tank cars.

The continued rapid expansion of railroad shipping facilities in the Joiner and Kilgore areas is indicated in the accompanying tabulation.

While the East Texas crude is finding markets all over the United States, approximately 65 per cent has been moving southward out of the fields to the Gulf Coast.

Longview Field Extended Three Miles to Southwest

Longview, Texas.—Three completions and the recovery of oil saturated sand cores from two other tests far removed from production during the past week enabled the Longview field, Gregg County, to fulfill early forecasts on its becoming a rival to the Kilgore and Joiner fields for production honors and also scope of producing area. Longview field is now proven for production over a length of about five miles in a northeast to southwest trend, with excellent prospects of being eventually tied into the Kilgore field, located about 12 miles to the southwest. One failure on the east edge of the accepted trend of production between the two fields was registered during the past week, with a second Gregg County semi-wildcat in a doubtful stage.

Frank Foster-East Texas Refining Company and others' Jasper Rodden 1, located south of the Texas & Pacific Railroad and in the northwest corner of the east 98-acre of the 198-acre farm, John Ruddle Survey, gauged 230 barrels oil during first two hours and 10 minutes at total depth of 3542 feet flowing open through 2½-inch tubing. The well was then pinched to a three-quarter-inch choke and produced 792 barrels during the 12-hour period ending 5 a. m. March 14. It was not drilled deeper after making a successful drill stem test March 1. The sand was penetrated with a big bit, and the horizon is not definitely known. This well extends the Longview field about three miles to the southwest. Pipe line connection is to be provided early this week by East Texas Refining Company's four-inch line that is to extend to a refinery and 36-car rack at Longview.

Roeser-Pendleton, Inc., Frank Foster and East Texas Refining Company's B. E. Rodden 1, located a short distance south of the discovery well of the field, was brought in March 12 flowing at an estimated initial of 15,000 barrels from sand at 3575-3592 feet. This well was pinched because of limited storage, and made 517 barrels 7 a. m. March 13 and 478 barrels 7 a. m. March 14. The oil tests 41.2 gravity at 62 degrees temperature. A connection with the above system of East Texas Refining Company will follow promptly. Roeser-Pendleton, Inc., own one-half interest in the property, and rig has been set to drill in the northwest corner of the lease. Magnolia Petroleum Company's Rodden 1, an east offset to the above new producer, is ready to drill in having cored sand at 3565-97 feet, then shut down to cement pipe. Magnolia is drilling three more tests along the north line of its 42 1/3-acre lease.

Arkansas Fuel Oil Company's R. S. McKinley 1, located about one-half mile north of the discovery well of the Longview field, was completed making 340 barrels oil during first half-hour on open flow from sand and gravel at 3579-3600 feet. This well made 3170 barrels during first 13 hours, and during the following 24-hour period ending 7 a. m. March 14 produced 10,175 barrels, flowing nearly open. During this same period Arkansas Fuel Oil Company and Yount-Lee Oil Company's Lathrop 1, the discovery well, gauged 4755 barrels, pinched. This oil is moving to car rack via the Arkansas-Louisiana Pipe Line Company's line, and royalty owners are being paid 47½ cents per barrel.

Continuation of the field another mile to the northeast of

the first producer is now conceded since Earnest E. Eslick-Little et al's Spring Hill church lot 1 cored oil saturated sand at 3601-07 feet. Mrs. Mamie Hammond et al's Hamby 1, located several miles further northeast, was drilling in shale early this week below 3615 feet, with chances for making a producer still a possibility, as most operators believe a crooked hole may have developed during the long siege of erratic work on this outpost.

Connecting link for the Longview and Kilgore fields is probably offered by Harry W. Elliott et al's S. G. Andrews 1, Wm. F. Hyde Survey, located several miles northwest of Kilgore and along the trend of production between the two areas, as this test cored oil saturated sand at 3642-50 feet. A reaming job was under way late in the week to prepare the hole for landing a string of pipe. Andrews 1 logged Pecan chalk at 2565-3016 feet, and first Austin chalk at 3272 feet.

About equal distance to the northeast of Kilgore, D. H. Byrd-Gulf Production Company et al's Frank Elder 1, Wm. J. McCurry Survey, failed to encounter sand and went into the Georgetown lime at about 3565 feet, but may be deepened.

Directly east of Kilgore, W. L. Brandon et al's Richards 1, M. V. Winkle Survey, developed only small oil sand saturation in coring at 3509-24 feet, then drilled to 3574 feet. Three attempts with a drill stem test failed, and it is believed that the drilling crew may have passed up sand formation before coring began. Plans are to set casing and try swabbing.

Prolific Kilgore Area Extended One Mile West

Tyler, Texas.—Extension of the prolific section of the Kilgore field more than a mile to the west furnished a surprise completion during the past week when Burton Drilling Company and Sabine Syndicate's E. B. S. Florey 1, located in southeast corner of 50-acre lease on east line of Peter Holmes Survey, flowed an average of 350 barrels oil per hour on first three-hour gauge through small chokes on casing and tubing. This well was then placed on a quarter-inch choke, and finished the first 13½ hours with a yield of 1840 barrels. Production was scored from sand at 3720-39 feet, and because of being about 140 feet lower on structure than other wells in the main part of the field considerable speculation went the rounds as to the outcome of this far removed test. Magnolia Petroleum Company had staked a south offset prior to its completion.

Railroad congestion in the Kilgore field served to throttle production and tank car shipments during the past week, and also forestalled market relief for several of the half dozen shut-in completions. Arrangements have been made by Cordova Union Oil Corporation et al to market the output of their well on the Christian farm with Sabine Oil & Pipe Line Company (L. H. Gray et al), but the latter have been unable to move in tank cars to the 10-car rack siding to start loading. Houston Oil Company shipped 518 cars of crude over its Kilgore field rack during the week ending March 11, and is now averaging about 16,000 barrels daily. Humble Oil & Refining Company has been averaging from 10,000 to 15,000 barrels daily on tank car shipments, and is being criticized by operators in Rusk County for refusing to utilize its practically completed pipe line, which has been standing idle for about a month, thus depriving operators of additional railroad shipping facilities that would be available should the company use its line.

Extension of the Kilgore field along the railroad toward the town will follow the completion of Hunter-Rowe et al's J. M. Watson-Mitchell 1, John S. Carithers Survey, as this test has cored sand at 3594-3614 feet, with broken sand at 3598-3612½ feet. It is located on the Gregg County side of the field. First Pecan chalk was found at 2545 feet, and Austin at 3467 feet.

Harrison County Test Misses Woodbine Sand

Shreveport.—Crump and Hannagan's Dunn 1, Bettie Humphries Survey, northwest Harrison County, East Texas, near the town of Harleton, apparently missed the Woodbine sand which did not appear, and is shut down in what is identified as the Georgetown, at 3560 feet, elevation being 330 feet. Base of the Pecan Gap was reached at 2830 feet.

It is now generally reported that the Woodbine was pinched out in S. D. Hunter and associates' Daugherty 2, W. B. Burris Survey, near Hallsville in the same county, and that it is temporarily abandoned also in the Georgetown at a depth of 3560 feet.

In spite of the apparent pinch-out of the Woodbine in the Dunn 1, Sinclair Oil & Gas Company, during the week ending March 15, built derrick for Davenport 1, J. V. Morton Survey, Harrison County, three miles west of the Dunn 1. It is the company's first location in Harrison County, where this company is said to have a 2700-acre block in addition to its leases in Marion County, where rig is up for Wurtsbaugh 1, C. S. White Survey. George L. Pace is said to be arranging for a location on the T. G. Barker 230-acre tract in the Victor Redraso Survey, Harrison County, four miles southwest of Hallsville on a 5000-acre block. Ryan Petroleum Company has taken over a 1200-acre block in Harrison County centering around Rosborough Springs, six miles south of Marshall. In the Elysian Fields area, southeast of Marshall, this same company is assembling a block.

Shelby County, scene of many oil and gas shows, but little commercial oil, was active in leasing during the last week and secured one new location, E. L. Chapman having built derrick for Pickering Lumber Company 1, C. E. Henry Survey, in the eastern part of the county. Johnson and Caldwell have blocked 4000 acres centering around the E. Carzenava Survey, three to four miles northwest of Center, the county seat, and Stevens and associates have a 4500-acre block in the J. Harrison Survey with a drilling obligation to spud a test by April 1.

A 3600-foot test is to be drilled on a 4000-acre block assembled by Ralph Johnson of Oklahoma City centering around the John Horton Survey, and extending into Sabine County from southeast Shelby County. T. A. Martin has a 3500-acre block around the Alfred Lindsay Survey of Shelby County and is said to plan an early test.

Tidal Adds to Potential Oil Acreage at Longview

Longview, Texas.—Tidal Oil Company materially increased its potential oil producing acreage in the Longview field by purchasing one-half interest and operating control in six tracts, aggregating 884 acres, located to the east and northeast of the producing area, from J. K. Wadley, Texarkana, and Jim P. Evans, Shreveport. The latter two operators received $100,000 cash bonus, and are to be carried by Tidal Oil Company for their share of $400,000 development expense on the properties. Tidal Oil Company will be reimbursed on one-half, or $200,000, of this expense from one-half of the net oil and gas revenue earned by the two individuals, then when all accounts have been squared

around the operating expenses will be shared proportionately as they accrue.

Development work on the acreage involved in this deal will go forward promptly, and rotary has been installed for the drilling of the first test in the most westernly southeast corner of the A. A. Castleberry 102-acre tract, Wm. Robinson survey. Prior to making this deal, Tidal Oil Company farmed out at an attractive profit small leases in the flush section of the Kilgore field rather than to engage in a close well spacing campaign, as would be inevitable by reason of necessary offsets.

Activity in Rusk-Gregg Area Reaches New Peak

Tyler, Texas.—Having maintained an uninterrupted gain in volume of field work since the first of the year, the Rusk-Gregg County district soared to a new peak level on activity during the past week even though 12 tests were dropped during the period as completions. The two counties started the current week off with a total of 285 operations, including 136 active tests; 128 others that were in process of erecting derricks, or installing rotary equipment; and 21 locations, thus making a net gain of 31 operations compared to the previous week. Another heavy quota of new companies and operators was added during the past week to the list of those taking part in the campaign. Rusk County has 117 separate listings, while Gregg County is rapidly forging ahead with 48, thus making a total of 165. However, a number of this group are operating in both counties.

Completion of more than 100 of the above tests before the middle of April is quite probable, unless transportation and market congestion troubles of the operators multiplies rapidly. The general attitude is to proceed with the completion of wells without market outlets then shut same in so as to facilitate relief rather than to hold them on top of the sand and speculate on amount of relief needed.

Magnitude of the development program now getting under way in the two counties is partially illustrated by the accompanying tabulation of all operators, and the volume of field work of each, while each operation will require from one to three direct offsets, with few exceptions. There are 110 listings with only one operation to the credit of each, and few of these will be contented to suspend development upon completion of the first well. A small percentage will not be rewarded for their efforts by reason of having strayed off from the possible oil producing area in the Woodbine formation.

During the past week new locations tapered off in the Joiner field, but registered sharp gains in the Kilgore and Longview fields, as the latter two have consistently contributed more attractive flush production, with promise of longer flowing life for wells.

Plan Completion of Tyler Pipe Line by End of April

Dallas, Texas.—Completion of Tyler Pipe Line Company's combination eight and six-inch trunk line from the Kilgore and Joiner fields, East Texas, to a refinery and tank car rack near Tyler has been tentatively set for the latter part of April. Headquarters of the company has been located at 909 First National Bank building, Dallas, with E. Constantin, Jr., as general manager.

Contracts were awarded last week for the erection of two 55,000-barrel steel tanks at the Tyler terminal, and a third tank of similar size will be erected near Overton, or at the point of interception of six-inch gathering lines to be built from the Kilgore and Joiner fields to tie into the eight-inch trunk line. This trunk line will require about 21 miles of pipe, and will deliver crude to Taylor Refining Company's 15,000-barrel plant now under construction at Tyler, and also to 60-car capacity tank car rack on the Cotton Belt Railroad.

Push Work on Rusk County Pipe Line to Gulf Coast

Tyler, Texas.—Having contracted to handle 4000 barrels of crude daily from the Rusk County fields to the Gulf Coast on a common carrier basis, The Texas Pipe Line Company is mobilizing its construction forces to rush work on its previously announced line that will extend from Gregg County via the Kilgore and Joiner fields to Douglas, Nacogdoches County, Texas. A station will be built on the company's eight-inch system at Douglas to provide 20,000 barrels daily capacity out of the district by way of San Augustine junction to the Gulf Coast.

The Texas Pipe Line Company is reported to have contracted to handle 4000 barrels of East Texas crude daily for the British-American Oil Company over a long period to the Coast, where the oil will be loaded aboard tankers for consignment to the shipper's refinery near Montreal, Canada.

Field Operations in New East Texas Area

RUSK COUNTY OPERATIONS

Extent of field operations in Rusk County is illustrated by the following table that lists each operator and status of operators:

Operator—	Lcns.	Derricks & Rigs	Active Tests	Total
Geo. S. Anderson & Cox		1	2	3
W. D. "Andy" Anderson et al		2	1	3
C. Andrade-Imperator Oil Corp.		1		1
Babcock-Gerdon Oil Co.	1		1	2
Ball Oil Corp. & Malone			1	1
Nick Barbare (UOG&M Co.)	1		1	2
Bill & Dave Oil Corporation			1	1
H. L. Blackstock et al		1	1	2
Harry W. Bleam et al		1		1
British-American Oil Co.	1			1
Dan Brooks, Trustee, et al		1		1
H. L. Brown-Hill et al		1		1
Burton Drl. Co. (Sabine Synd.)			22	2
Bunte et al		1		1
Carolyn Oil Corporation	1			1
Roy I. Carter (C.P. Oil Co.)	2	2	1	5
E. L. Chapman et al			1	1
L. W. Collender (Now Leonard Pet. Co.)			1	1
Cordova Union Oil Corp, et al		3	2	5
Crabtree-Rowe-Johnson			1	1
Cranfill-Reynolds Company		1	2	3
J. G. Curtis & Lowe			1	1
Deep Rock-Wainwright-West Oils, Ltd.			1	1
Geo. DeMontrand et al			1	1
Devonian Oil Co.-Gulf Prod. Co.		1		1
Dan Dillon et al		1		1
Dohman et al			1	1
W. H. Dunning-C. P. Link-Markham		1	1	2
East Texas Ref. Co.			1	1
Elzey Drl. Co. & C. H. Tautenhahn			1	1
Geo. Fagg et al			1	1
Federated Oil Company	2	1	3	6
Frank Foster-Deep Rock et al	2	1	3	6
Foster-Little et al			2	2
Fox-Butler & Heflin			2	2
Gibson-Johnson & Merrick Drl. Co.			1	1
R. W. Giles (Shreveport Prod. Co.)		1		1
A. M. Griffith et al		1		1
Gulf Production Company		4	1	5
W. B. Hamilton-Consolidated Oil Co.		2	4	6
L. P. "Pink" Hammond et al				
Haynes Drilling Co.			2	2
Heep Oil Corp.		1		1
Heep Oil Corp. & Imperator Oil Corp.	1			1
Hicks Drilling Co.		1		1

(Continued on page 79)

North and West Texas Field Notes

H. H. KING, *Staff Representative, Fort Worth, Texas*

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New Oil Pool Uncovered in Western Jack County Area

Wichita Falls, Texas.—Western Jack County added a new oil pool in the Strawn sand horizon when Brazos River Gas Company's D. C. Clayton 1 developed a flow of 195 barrels of high gravity oil on 12-hour test with a daily flow of 5,000,000 cubic feet of gas at 2822-33 and 2886-2906 feet, with a total depth of 2945 feet. This oil strike is located about three miles southeast of Bryson and on the southwest edge of an established gas field. The Clayton 66¼-acre lease in the Jas. Young Survey, abstract 916, was farmed out by Gulf Production Company to the above concern on an over-riding royalty arrangement.

E. C. Reed and associates developed a 45-barrel pumper in semi-wildcat territory in northern Young County by the completion of their E. P. Tatum 1 from sand at 651-62 feet. This producer is located in the northeast part of Section 1908, T.E.&L. Survey, and about two miles northeast of Jean.

Wholesale abandonment of virtually depleted wells and leases in North Texas is following in the wake of recently established crude price reductions, which are now at the lowest level in the history of most of the fields in the district. Major companies are setting the pace in this movement, although the latter are inclined to sell off their non-desired holdings. Humble Oil & Refining Company, Gulf Production Company and others have made sales lately, while The Texas Company is about to join in the selling campaign. These settled leases are being sold off at prices ranging from $200 to $400 per barrel basis.

Preparations are being made by Deep Oil Development Company to plug back from Ellenberger lime formation at a total depth of 5430 feet in its Munger 1, located in southern Wichita County, to give a heavy shot in sandy lime formation that showed for a small producer between the 3600-3900-foot level. This is the deepest hole drilled in the county, and sulphur water was found in the Ellenberger. The same company's Hirschi 1, located in the north portion of Wichita County, is drilling below 4370 feet, while a third deep test on the L. F. Wilson ranch, Archer County, is drilling with hole full of water at 1820-1935 feet.

Big Lake Well Blows Out When Pressure is Applied

San Angelo, Texas.—Largest of the record depth oil and gas producers in the Big Lake field successfully resisted efforts to apply more back pressure last week by breaking through a joint of seven-inch casing, then blowing out at the surface between the seven and 9⅝-inch casing after snapping off a high pressure valve. This dangerous mishap occurred on Group One Oil Corporation's (Continental Oil Company) University 4-B on the afternoon of March 10 when an attempt was made to increase the tubing back pressure from 1900 to 2000 pounds in order to curb the gas consumption. Early this week the well was again under perfect control, but the defective casing remains to be dealt with. The well has a total depth of 8587 feet, and registered a peak oil flow of 8686 barrels of 56 gravity (corrected) and 65,755,000 cubic feet of gas just prior to the installation of a string of three-inch tubing to the 8560-foot level.

University 4-B gauged 5805 barrels oil and 42,730,000 cubic feet gas, with 1000 pounds casing and 1900 pounds tubing pressure, on the day previous to the blowout. The seven-inch casing was cemented at 8050 feet with 900 sacks of cement, and the 9⅝-inch pipe at 5260 feet, with 2400 sacks. The break in the oil string of pipe occurred between the top of the cement at the 3800-foot level and the surface, and instantly snapped off the valve at the control head. The cellar filled with oil from this wild flow and delayed relief measures several days. Back pressure was withdrawn from the tubing and seven-inch casing so as to detract the oil and gas flow from between the two strings of pipe while new fittings were installed. Everything was in readiness early this week to shift back to the former connections, but in all probabilities the well may later be killed to permit the installation of an extra string of pipe because of the break in the seven-inch casing.

Seven deep wells on production at the beginning of the current week gauged 19,229 barrels of high gravity oil. Group One Oil Corporation's University 2-B and Big Lake Oil Company's University 1-C have been killed to deepen, then run a smaller string of casing and also install tubing.

Production from the nine deep wells in the Big Lake field for the 24-hour period ending 7 a. m. March 16, 1931, is listed below:

	Oil Production	Gas Production	Pounds Casing Back Pressure	Pounds Tubing Back Pressure	Total Depth
Big Lake Oil Company—					
University 1-C	....	.....	(†)	....	8,668
University 2-C	2,096	22,131,000	1,450	410	8,603
University 3-C	160	1,294,000	600	....	8,923
University 4-C	2,473	9,893,000	1,550	1,200	8,697
University 5-C	2,071	20,989,000	1,425	1,000	8,718
Group One Oil Corporation—					
University 1-B	2,950	16,293,000	215	....	8,523
University 2-B	....	.....	(†)	....	8,489
University 3-B	1,550	16,908,000	1,400	800	8,633
University 4-B	7,929	.....	250	250	8,587

† Deepening, then to case and tube.

Wichita, Kansas.—One of the most interesting developments in Kansas is that of Danciger Oil & Refining Company et al's Weaver 1, SW SW SW Section 3-2s-35w, which is drilling at 2700 feet in a proposed 3500-foot test. It is the most northerly test now drilling in the Mid-Continent area and the most northwesterly in Kansas. It was located on the basis of magnetometer surveys which seem to indicate the existence of a granite ridge striking north-south with several high peaks on top of the major ridge. A show of gas was encountered at 1557 feet and a show of oil at 1665 feet. Niobrara chalk or its equivalent was encountered at approximately 1400 feet. This formation produces gas in the Beecher Island area west of the Weaver 1, across the Kansas-Colorado line. Operators believe that a depth of 3500 feet will test all pre-Pennsylvanian formations and possibly penetrate top of the Pennsylvanian.

South Texas Field Developments

EARL POST, *Staff Correspondent, San Antonio, Texas*

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Refugio Operators Protest One-Quarter-Inch Chokes

San Antonio, Texas. — Declaring that one-quarter-inch chokes placed on the deep wells of the Refugio field are inconsistent and in many cases are doing material harm to the wells, a formal protest is expected to be made to the Texas Railroad Commission to restore the field to its original plan of production.

The 59 wells in the field producing from the 5400-foot horizon or lower were ordered placed on one-fourth-inch chokes for trial tests starting March 10 and continuing through March 19, when the commission held a hearing in San Antonio on March 3. At that time, it was thought that the only affect in reducing the size of the chokes would be lowing the wastage of gas, which is said to be as high as 200,000,000 cubic feet daily.

It was reported that the first six days of the test saw three wells kill themselves entirely on the small choke. The production of the deep strata, which was 17,890 barrels several weeks ago, is said to have dropped to nearly 13,000 barrels, a decline of about 25 per cent. One operator's four deep producers making 2200 barrels prior to the change, are now flowing only 1800 barrels.

The protest, the operators declare, will not be based on the decreased amount of production as much as on the gas wastage. The only affect that the smaller chokes have had to date has been in reducing the oil flow in proportion to the amount of gas pressure cut back. In other words, the proportion of gas wasted to barrel of oil produced is not lowered.

Whether another method of reducing the gas waste will be submitted is not known at this time.

Opening of New Section of Pettus Field Seems Certain

San Antonio, Texas.—Opening of a new section of the Pettus field, an area heretofore practically condemned, seems evident as a result of the showing encountered in J. A. Mauldin's Mauldin 1, one-fourth mile southwest of the townsite producing area. The well logged a sand at 3847-54 feet, which developed 125 pounds pressure with about 75 feet of gasoline and mud in five minutes on a drill stem test. Casing has been set for its completion.

The well is 150 feet from the northeast and northwest lines of the west 16 acres in the 66-acre tract, G. A. Kerr Survey. It is one-half mile south of Trinity Drillers' Roberts 1, just west of the townsite, and Rio Bravo Oil Company's S. A. & A. P. 7 on the railroad right-of-way in the townsite. It is about one-fourth mile north and slightly west of Houston Oil Company's Portis 1. The latter three wells developed salt water in the regular Pettus producing horizon and were abandoned as failures.

The showing in this well indicates a possible connection between the Pettus townsite pool and the Cosden pool, two miles west of the townsite. The producers in the Cosden area and the Mauldin well are about one and one-half miles apart and the completion of the latter as a successful producer likely will bring about a drilling campaign in that section.

At the same time, operators are closely watching United Production Corporation's Ray 31, midway between the original Pettus pool and the townsite. This well logged a sand at 3962 feet and was drilled to 3969 feet, still in sand. The formation was encountered under a caprock at 3961-62 feet. Casing has been set and preparations are now being made to drill in. Its successful completion will connect the two pools, which are about 3500 feet apart.

In the new section of the field, east of the original producing area, several more wells are getting underway by United Production Corporation, whose Ray 35 and 36, which are rigging up and building derrick, respectively. The 35 is 1100 feet east of Ray 34, recently completed, and Ray 36 is north of the 35. Another location on the Ray lease by the company was 33, 700 feet southwest of 31 and midway between the discovery and townsite pools. It has derrick up.

In the wildcat territory, Rowan and Hope's Mrs. Fannie Goree, Section 4, T. B. Barton Survey, has been abandoned at 4007 feet. It is five miles west of Grayburg Oil Company's Kimball 1, which made a producer last summer.

In the Simms pool, Simms Oil Company's Holzmark 2, James A. York Survey 333, has been abandoned at 3512 feet. This well originally was completed as a gasser, but salt water broke in when the casing split. The casing was recemented and several attempts to perforate failed, resulting in the closing down of the well as a failure. The Holzmark 1 made a 56,000,000-foot gasser at 3542-52 feet.

Extension of Darst Creek Producing Area is Likely

San Antonio, Texas. — The Darst Creek field, Guadalupe County, will receive a one-fourth mile extension due south, it is indicated. Sun Oil Company's Dowdy 1, Jacob Darst Survey, has encountered the Edwards lime at 2587 feet and has set 6⅝-inch casing at 2570 feet preparatory to completing. The well was drilled three feet into the lime to a total depth of 2590 feet, the entire core showing saturation sufficient to indicate a producer.

The well topped the chalk at 2208 feet and went out of the formation at 2389 feet. The chalk is a marker in this section and the amount drilled through in the Dowdy test is considered about normal.

R. D. Parker, chief of the oil and gas division of the Texas Railroad Commission, recommended after a hearing March 12 in Austin that the allowable oil outputs of the Darst Creek and Salt Flat fields be reduced. The latter is in Caldwell County about 15 miles from Darst Creek. Approval of the action is expected immediately.

The allowable of the Darst Creek field will be cut from 30,000 to 20,000 barrels daily, while that of Salt Flat will be reduced from 16,000 barrels to 12,550 barrels.

Caldwell County Producer Causes Much Excitement

San Antonio, Texas.—There was a flurry of excitement in Caldwell County the early part of the week when J. E. Mills et al's McMahon 1, six miles southeast of Lockhart, pumped approximately 30 barrels of oil in a little more than two hours from a total depth of 2185 feet. It is believed to be Edwards lime oil, although some scouts declared the production to be coming from the Austin chalk, while others said that the production was from the Eagle Ford shales.

This well was drilled into this formation several months ago, showing a small amount of 39.1 gravity oil at 2127-60 feet. Casing was set above the formation and the well drilled in. It is reported to have shown very little on pump and was deepened 25 feet to the present level, and was closed down.

The pumping test several days ago lasted hardly more than two hours when a breakdown necessitated cessation of operations for repairs. The test, therefore, can hardly be taken as positive assurance of a new pool inasmuch as a large part of the oil probably was an accumulated head from standing for such a long period. It is, however, an indication of production in the vicinity.

The exact location of the well is 270 feet from the north line and 70 feet from the west line of the 50-acre tract in the Pinchebach Survey.

Another location has been made by these operators for a direct east offset to the well and the derrick is being skidded on location for an immediate test. Its outcome will be watched with a great deal of interest.

About three-fourths of a mile northwest of this test, V. F. Neuhaus and Camp are rigging up on their J. B. Moore 1, William Clinton Survey. The location is 450 feet from the east and 200 feet from the south line of the 84-acre tract. This well also should show the trend of the possible production in this new section.

Reel County Test Fails to Reach Kerr Discovery Sand

San Antonio, Texas.—Evans and Sprinkle et al's Marcus Auld, Real County, failed to get the sand encountered in Evans and Gant's Jeff Love 1, Kerr County discovery well four miles to the southwest, at 3391 feet. This well is now setting casing at 3485 feet preparatory to drilling to its contract depth of 4000 feet. It also failed to find the sand at 2535 feet, which also was found in the Love test.

The Marcus Auld well is located in Section 15, Block D, H.E.&W.T. Railway Survey. The Auld well is the only test at an interesting depth at this time.

Neely and Halbert have taken over a block of approximately 12,000 acres in southeastern Kerr County and are said to have signed a contract for a 4000-foot test to be started before the first of May. The block is about five miles southwest of Center Point near the junction of the Kendall and Bandera County lines. This block is on the opposite southern corner of the county from the Jeff Love play.

San Antonio, Texas.—Texas Petroleum Transport Company announced a reduction in the price of Somerset crude to meet the recently posted price of Humble Oil & Refining Company and other companies, on a gravity basis. It was effective March 14. The price range at Somerset is now 43 cents a barrel for 29 gravity to 67 cents a barrel for 40 gravity and above. The average of Somerset crude is 33 to 33.9 gravity, which brings 53 cents a barrel.

▼ THE WEEK'S NEWS ▼

(*Continued from page* 60)

servation laws, because they have too many other duties, or they will not."

Members of the railroad commission, March 14, characterized Governor Sterling's statement as well as that made the day previous by President Hoover concerning the East Texas crisis, as an unfounded and unwarranted attack upon the commission. In the statement made by the majority of the commissioners, President Hoover was assailed, and the action of the commission was defended on the basis of the fact that the commission has no control over prices to be paid for crude oil.

In the meantime the East Texas Lease, Royalty and Producers Association has asked for a delay of 30 days rather than to hold the hearing March 24, as recommended by the railroad commission.

Propose Utility Control By State Board in Texas

Austin, Texas.—In a message to the legislature during the past week, Governor Sterling recommended passage of a utility measure that will bring under the regulation of a new commission, gas companies, telephone, telegraph, water, light and power companies, and similar utilities.

Pointing out the importance of such a measure, he suggested action on the bill prepared by the Texas Municipalities League which was recently introduced in the house by Representative Petsch, Graves and Hubbard.

This proposed act would create a commission of three members through appointment by the governor and with the approval of the upper house, whose terms of office would be six years, a new member being appointed every two years.

Geologists Gather for Meeting at San Antonio

San Antonio, Texas.—Geologists had begun to convene here early this week for participation in meetings preliminary to official opening of the annual meeting of the American Association of Petroleum Geologists, which was scheduled for Thursday, March 19. The meeting is to continue through Saturday, March 21, and it will be followed by various field trips beginning Saturday and Sunday.

For Monday and Tuesday, March 16 and 17, the program provided for preliminary registration and committee meetings at the Gunter Hotel, convention headquarters; and on Wednesday the program included registration, executive research and business meetings and a field trip to Darst Creek and Luling fields. The official program was to open Thursday and to include for that date registration, technical sessions at the Municipal Auditorium and nomination of officers.

Dallas, Texas.—The eighth annual convention of the National Oil Scouts Association of America will be held here May 11 and 12. Selection of Dallas as the site for the next convention won the unanimous support of the executive committee, which met here March 14, because of the membership of the organization benig largely concentrated in the East Texas fields. W. E. Whitcomb, The California Company, San Angelo, chairman of the executive committee, presided at this special meeting, and appointed J. W. Selby and John H. Langston, chief scouts for Shell Petroleum Corporation and Sun Oil Company, respectively, to arrange for the convention. Langston is first vice-president of the association, and is a popular choice for the next president.

Gulf Coast Field Developments

JACK LOGAN, *Staff Representative, Houston, Texas*

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Continue Exploratory Work In Lavaca County District

Houston.—Additional attempts to secure information regarding possible existence of oil-bearing formations in Lavaca County are being made despite the recent failure of two deep tests drilled in the vicinity of Yoakum, Texas. Several major oil companies hold leases on the greater part of the land south and east of Yoakum and practically every acre of the land has been leased that gives any indication of prospective structures.

Gulf Production Company has a core test crew of nine men working in the vicinity of Yoakum which will thoroughly test the country. Operations of this crew are expected to cover a period of from six to 12 months; an indefinite number of tests are to be made before activities are completed. The exploration party is now operating in the John Conrey Survey, about seven miles northwest of the recent test drilled by Cranfill-Reynolds Company.

This test, Hermes 1, located 150 feet from the north line and 150 feet from the east line of the 183-acre tract in the William Ryan Survey, was abandoned last week at total depth of 4540 feet in shale. Top of the Jackson was encountered at 2495 feet. The only other recent test in this area was that of Kendricks et al's Reeves 1, in the J. A. Heuser Survey which was abandoned the first week in February at 4069 feet.

Fail to Extend Raccoon Bend Field to Northwest

Houston.—Operations completed in the Raccoon Bend field, Ausin County, during the past week failed to increase production for that area. H. R. Flannigan had sought to extend the field to the northwest by deepening his Dietrich 1 but the hole was finally abandoned at 3852 feet. This well was completed early in January of this year as a shallow gas well making 25 million cubic feet of gas at 978 feet.

Humble Oil & Refining Company abandoned two of its tests in the center of the field without having encountered any production. Paine 8 was a dry hole at 1126 feet and Paine 11 was abandoned in shale at total depth of 3679 feet.

Activities in the field have been practically at a standstill for the past two months with the exception of Humble Oil & Refining Company's E. Grawunder 3-A which is a recent location, now drilling at 575 feet in shale. This test is located 100 feet west of the northeast line in center of the 72-acre tract.

Houston.—Reports on the operations of Price and Wilhite's Juergus 1 in Montgomery County show that the operators of the test experienced considerable disappointment early in the week when they lost 1000 feet of the hole from caving. The test was down 3650 feet when it began caving. A sidetracking job will likely be started at once and a second attempt will be made to develop production from the oil show encountered at 3534 feet in the first hole.

Inner Producing Limits at Barbers Hill Established

Houston.—Humphreys Corporation's L. E. Fitzgerald 1, completed this week as a producer, has probably established the inner producing limits of the northeast flank of the Barbers Hill field after drilling into what is likely the main salt plug. The well was drilled through 1821 feet of salt, top of the salt having been encountered at 1424 feet. After the bit had passed through the bottom of the salt at 3245 feet it encountered numerous other formations and again entered salt at 4928 feet, which continued in evidence to total depth of the hole, at 5379 feet.

The hole was sidetracked at 1700 feet and again drilled through salt and into shale and sandy formations to total depth of 5245 feet. After casing was set and cemented the operators set five joints of screen and the well was brought in for 1600 barrels initial production. The producer came in flowing through five-eighths inch choke. Pressure was registered as 400 pounds. The formation from which this well is producing is approximately 100 feet thick.

Several wells have been drilled into the second layer of salt on the east and north flanks of the dome but none of them has been successful in drilling through the salt to determine whether there is a second ledge. From all indications this second layer of salt may be considered part of the main plug.

High Island Workover Now Producing From Lower Level

Houston.—Marrs McLean's Cade 16, formerly completed for initial production of 1300 barrels to 3647 feet, has been worked over and is now producing from a second producing level in the High Island field, Galveston County. The workover was completed last week at total depth of 4499 feet after 27 feet of 4½-inch screen had been set on bottom of well and the well came in flowing 150 barrels of fluid, 75 per cent basic sediment and salt water.

Production in the field is found at four levels, 3600 feet, 4500 feet, 5000 feet and 6000 feet. There are 13 producing wells in the field at the present time which are making a daily average production of 700 barrels. Seven of the producers are the property of Gulf Production Company and the other six belong to Marrs McLean. These are the only two companies that have been operating in the High Island field. The field has only one operation going on now, Cade 20, of Marrs McLean which is shut down.

Houston.—The firm, Smith & Wier of Houston, composed of Harvey S. Smith and Harvey J. Wier, has completed blocking 8800 acres in Vernon Parish, Louisiana, Township 2 north, Range 11 west, and Township 2 north, Range 10 west. The company is now rigging up to drill Delta Land & Timber Company 1 in the northeast quarter of Section 14-2n-11w. Contract depth is 4000 feet, but the test will be drilled deeper unless production is found at lesser depth.

Cross Timbers District Test In Harris County Abandoned

Houston.—Gulf States Oil Company has abandoned its Augspurger 1 in the Cross Timbers district of Harris County at 5550 feet. The test, located on a torsion balance prospect, has been the first activity in attempting to locate oil-bearing formations in that part of the county. The test, a rank wildcat, is located 300 feet east of the Westfield road, 830 feet north of the south line of Section 3, block 1, of the H. & T. C. Survey, about eight miles north of Houston. An oil show was reported encountered in the hole at 1100 feet.

Leases in this territory, adjacent to the test are held by major oil companies, The Texas Company holding a 90-acre lease in the E. J. Overley estate on the east side of the block and Sun Oil Company holding a 90-acre lease on the west side. Vacuum Oil Company has a 70-acre lease on the northwest side of the block; a 60-acre lease along the right-of-way of the Missouri Pacific railroad is held by Humble Oil & Refining Company and Link Oil Corporation, in equal parts.

Shell Reduces Activities, Forces, in Gulf Coast Area

Houston.—Shell Petroleum Corporation has effected drastic reductions in personnel in the Gulf Coast division, headquarters of which are located here, practically all departments having been cut down, while some have been eliminated altogether. The reductions represent approximately a 60 per cent cut in the organization which has been maintained.

Although the company will retain leases along the Gulf Coast and continue to operate such holdings as the Black Bayou field, Cameron Parish, Louisiana, White Castle dome, Louisiana, and Danbury dome, Brazoria County, Texas, the operations will be carried on with greatly reduced staff.

While the land, leasing, and exploration departments suffered particularly deep cuts, the contracting of the organization also includes elimination of parts of the field organization and reduction of office personnel. The geological department has been greatly reduced, and the geophysical division is to be virtually eliminated, extensive work along the latter line having been completed. The Shell interests have been among the leaders on the Gulf Coast in the search for new salt domes, with geophysical instruments, and in consequence control various domes in Texas and Louisiana.

Large Gas Well Completed In Northern Goliad County

San Antonio, Texas.—Slick Estate's Allen 1, O. Marshall Survey, 1500 feet east and south of the discovery well in northern Goliad County, has been completed as a large gasser, spraying gasoline at total depth of 4238 feet. This well originally was completed as a 40,000,000-cubic-foot gasser making about 60 barrels of gasoline at 4198-4212 feet. The well was then killed and the drill sunk to 4238 feet, indicating 40 feet of sand, interposed with streaks of shale.

The interesting part of the well is the thickness of the formation, one of the greatest ever encountered in South Texas. Not a bit of salt water was found in this stratum.

The final check on the production was about 40,000,000 cubic feet of gas with 40 barrels of gasoline. There was 1000 pounds pressure on the casing and 675 pounds on the tubing.

Operators already have moved onto the Riedel 1, 1830 feet southwest of their Poetter 1, discovery well, and will spud within a couple of days on the third test for the field. It is 330 feet from the northeast line and 990 feet from the southeast line of the tract, W. C. Brown Survey.

▼ MISSISSIPPI ▼

Well in Amory Field Encounters Gas High

Jackson, Mississippi.—Encountering the gas sand 26 feet high as compared to the nearest of three small producing gassers in the Monroe County (Amory) gas field of northeast Mississippi, Amory Petroleum Corporation's Harris 1, NW NE Section 18-13s-17W, encountered the gas sand at 2324 feet, surface elevation being 455 feet, and late last week was arranging to set casing for a test. The well showed considerable pressure when the sand was encountered; 6⅝ probably will be set; 10-inch was cemented at 478 feet at top of the Paleozoic rock.

Little activity is under way at present in the Jackson gas field where there are 38 gas wells, only a few of which are being pulled. No new locations were announced, the last week, the latest new test for the Jackson area being an outside test in NE SE Section 4-5-1E, Hinds County, by Industrial Gas and Electric Company in Illinois Central Railroad 1, which has spudded and shut down to complete rigging up. With this test there are eight tests actually drilling in the Jackson field.

It developed during the last week that Love and associates' Payne 1, SW SW Section 27-6-1E, in the north edge of the Hinds County part of the field is checking somewhat low, the test still being in Midway black shale when plug was drilled at depth of 2505 feet.

Carter Oil Company and associates' Dubard 1, NW NW Section 18-22-4E, Grenada County, north central Mississippi, which has a gas show at the 2900-foot level, artesian water later developing, has shut down at 4012 feet in red shale, 4000 feet having been contract depth.

Ohio Oil Company has cemented 9⅝-inch O. D. casing at 2929 feet in sandy shale, using 100 sacks of cement in its deep wildcat test in Cantrell 1, NE NE Section 16-15-5E, Clay County, northeast Mississippi.

Pelican Natural Gas Company, Inc., headed by S. D. Hunter of Shreveport, qualified recently with the secretary of state to do business in Mississippi. The agent in Mississippi for this firm which has considerable production in the Zwolle field, is R. T. Huton of Jackson.

J. W. Newman, said to represent the Moran Corporation of Houston, Texas, is assembling a lease block in southeast Lincoln County and southwest Lawrence County, Mississippi.

Shreveport.—Frank Melat, Shreveport independent operator, is moving in heavy drilling equipment for a 5000-foot wildcat test on a 3000-acre block in the Robert and William Tippett Survey of Rusk County, Texas, 10 miles southeast of the Henderson producing area. The test, according to the geology worked out by Crider and Perkins of Shreveport, is on the Southwest flank of the Long Branch structure. Melat expects to reach the upper Trinity in a 5000-foot test.

Shreveport.—After bailing down 1500 feet in Jamestown Syndicate's Lawhon 1, S WNE Section 15-16-8w, a Bienville Parish wildcat, which had a strong gas show at 2860 feet in a sandy shale in the Tokio, casing parted and the well was shut down on Friday, March 13. Total depth is 2866 feet. Six-inch casing was cemented at 2845 feet.

Louisiana--Arkansas Field Notes

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Extension to Townsite Part of Zwolle Field Completed

Shreveport.—Frank Buttram and associates' Hale 1, NE NE Section 1-7-13, a half mile southwest extension of the townsite part of the Zwolle producing field, was completed during last week flowing 62 barrels of oil daily. Total depth is 2354 feet in chalk. This test checked 150 feet higher at the Zwolle marl contact topped at 2066 feet, than the townsite wells.

Eight miles east of the Zwolle east field Lacey Jesup Oil Company abandoned Brown Lumber Company, SE NE Section 28-8-10, Sabine Parish, as a dry hole at 3250 feet. Zwolle chalk which was topped at 2690 feet was based at 2822 feet.

Two attempts to extend the southeast producing part of the Zwolle field ended in failure during the last week. Pearce Trustee's Pearce 1, SW SW Section 10-7-11, was abandoned as a dry hole in chalk at total depth of 2600 feet and J. M. Thompkins in the same section abandoned Stoker 1 as dry in the chalk in total depth of 2520 feet. In the edge of the northeast part of the producing Zwolle area, Bradley Drilling Company abandoned Newton 1, NW SE Section 25-8-12, as a dry hole in chalk at total depth of 2575 feet.

W. M. Coates is coring Austin chalk for the Woodbine at 4037 feet in Collins 1, Section 28-9-10.

Two wildcat tests north of Zwolle had locations made during the week, R. L. Gay, Trustee, having run derrick pattern for Long-Bell A-1, Section 10-8-13, Sabine Parish, and A. H. Thomas making location Edwards Estate 1, Section 8-8-13. H. W. Perritt made two new locations in the south extension of the Zwolle east field. Nemours Corporation made two locations for Union Parish, Monroe gas field, and two new locations were made for the Richland gas field, these comprising all of North Louisiana's new locations for the week.

Much Arkansas Equipment Being Moved to East Texas

El Dorado, Arkansas.—Dismantling of equipment in south Arkansas for the purpose of transfer to the new East Texas oil field in Gregg and Rusk Counties, continued during the week.

Shreveport-El Dorado Pipe Line Company is dismantling its Cordell steam station in Section 24-17-16, near Smackover, and probably will ship to East Texas, probably for use in connection with Atlas Pipe Line Company, Incorporated's proposed eight-inch pipe line to be built from the East Texas field to Shreveport. Atlas Pipe Line Company, Incorporated, is taking over Shreveport-El Dorado Pipe Line Company. Shreveport-El Dorado Pipe Line Company is leaving an electric pumping unit and tank in Section 24-17-16.

Reports are current here that Houston Oil Company of Texas may take up its six-inch pipe line, 12 miles in length, and which extends from its Canada Tank Farm in south Arkansas to its Camden, Arkansas, refinery. The Houston company is already engaged in taking up a four-inch oil line extending from the Camden refinery to the Mount Holly oil field in Section 25-15-18, Ouachita County, a distance of approximately 12 miles.

In addition to dismantling its Cordell steam station Shreveport-El Dorado Pipe Line Company has completed purchase of four 55,000-barrel steel tanks from Dixie Oil Company (Standard of Indiana) and is tearing them down for shipment, presumably to the East Texas field. Continental Supply Company has demolished one 5000-barrel steel tank and one 10,000-barrel tank, both located in Section 26-16-15.

W. T. Moran Corporation has sold to Sam Sklar, Trustee, the Ward lease in SW NE Section 17-18-15, south Arkansas, containing 40 acres and one small producer.

Marine Oil Adds Eighth Well in Urbana District

Shreveport.—Marine Oil Company added its eighth oil producer in the Urbana district, Union County, Arkansas, during the week ending March 14, when W. B. Thompson B-2, SE NE Section 10-18-13, was completed at total depth of 3582 feet, flowing 300 barrels of oil by heads. The oil is free of salt water, this being unusual for production in that area. The test had three feet of sand; 6⅝-inch O.D. casing was cemented at 3577 feet. This company made location for W. B. Thompson B-4, SE NE Section 10-18-13, Arkansas' only new location for the week.

Late last week C. H. Murphy and associates were coring ahead at 2620 feet after testing 20 joints of salt water from 2537-52 feet. Previously this test had shown salt water from 2190 to 2202 feet.

Wilson and Chapman's Hadley 1, NE SW Section 3-18-13, an outside test in Urbana, after swabbing dry at 3563 feet, rose 600 feet in oil at 3570 feet but may core ahead.

Smitherman and McDonald may pull liner and recement bottom of hole in Reed 1 (now Bodcaw Lumber Company 1), SE NW NW Section 16-15-22, a wildcat in La Fayette County, Arkansas, which bailed and swabbed salt water with a show of oil at total depth of 1194 feet.

Shreveport.—United Public Service Corporation's Saunders 3, Section 42-8n-10e, east central Louisiana, which showed 2,000,000 to 3,000,000 feet of gas daily in a drill stem test, was completed Sunday, March 15, making 7,000,000 feet of dry gas with 650 pounds rock pressure in the Jackson formation, at 1438 feet. Nine-inch casing had been cemented at 1400 feet. This well is in the same section with a test drilled by A. C. Glassell on the same 150,000-acre tract last summer which showed 6,000,000 feet and some salt water at practically the same level which was identified as the Jackson-Yegua. This test resulted in considerable geophysical and geological work being done across the entire "waist-line" of Louisiana extending into East Texas, of an area immediately south of the Angelina-Caldwell Flexure. The Saunders 3 is the first commercial shallow gasser so far completed in Concordia.

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Completions for Past Week in U. S. Fields

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CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
LONG BEACH—		
Dukette & Pelissier, No. 1	50	7610
E. J. Preston, No. 32	1000	5240
PLAYA DEL REY—		
Barnsdall Oil Co., Burks 11	150	4300
Blue Ridge Oil Co., Hertel 14	1000	5685
Henry Dabney, Robertson 1	40	4535
C. El Lewis, Wolfe 6	500	5850
Sovereign Oil Co., No. 11	300	6150
VENTURA AVENUE—		
Associated Oil Co., Lloyd 95	3400	7375

KANSAS

Company, Well and Location	Initial Production Bbls.	Depth
COWLEY COUNTY—		
Reynolds & Wasson, Watts 1, ne c nw 15-33-3e	*	3637
ELLIS COUNTY—		
Jamot Brown et al, Weidle 1, ne c nw 13-15-16w	*	3653
HARVEY COUNTY—		
Washoma Pet. & Shell, Zook 1, c nw sw 36-22-2w	700	2965
Cosby, Deitrich and Phillips Pet., Cone 1, nw c ne 31-22-3w	*	3872
McPHERSON COUNTY—		
McPherson O&G Devel. Co., Salthouse 1, c se 15-19-2w	¶3½	2930
MORRIS COUNTY—		
Great Basin Oil Co., Balyntine 1, sw se se 18-16-5e	*	2345
RENO COUNTY—		
Study, Turner and Frost Drlg. Co., Haury 1, se c nw 1-23-4w	335	3254
RUSSELL COUNTY—		
Signal Oil Co. et al, Sellens 1, ne c sw 26-15-13w	350	3314
Stearns and Streeter, Mermis 3, se nw se 33-13-15w	285	3296
SEDGWICK COUNTY—		
Continental Oil Co., Nagel 1, se ne nw 19-27-2e	180	2989
Benson et al, Carlton 1, se c sw 24-28-1e	*	3375
STEVENS COUNTY—		
Texas Interstate Pipe Line Co. et al, Stone 1, c se 34-32-39w	¶8½	2518
Hull 1, c sw 34-32-39w	¶6½	2490

OKLAHOMA

Company, Well and Location	Initial Production Bbls.	Depth
CARTER COUNTY—		
Magnolia Pet. Co., Dickerson 4, se c ne 24-1s-3w	825	1925
C. L. Anderson, Eaves 8, se nw sw 24-1s-3w	470	2487
CREEK COUNTY—		
C. G. Tibbens O&G, Wilson 1, nw c ne sw 18-14-9e	140	2346
F. R. Billingslea, Wayman 2, nw c ne nw 22-15-8e	185	2870
J. B. Greives, Lowe 9, sw ne ne 13-19-8e	210	2150
Thompson & Penrod, Perryman 1, nw c se 1-14-11e	*	2940
Wilcox O&G et al, Baker 1, cel nw nw 14-17-10e	*	2095
C. O. Buckles et al, Replogle 1, nw c ne sw 10-17-8e	*	3475
J. F. Wood Oil Co., Langley 1, ne c se 19-19-9e	*	2596
HUGHES COUNTY—		
McGee Brothers, Deer 1, se sw sw 1-9-10e	¶5½	1193
LEFLORE COUNTY—		
Sooner O&G 1, sw c nw ne 28-7-26e	¶1½	1732
MUSKOGEE COUNTY—		
Taylor & Geiger, Tucker 5, ne c nw 16-15-15e	¶¼	770
OKFUSKEE COUNTY—		
Shelden and Staples, Jacobs 2, sw c se ne 21-12-11e	40	3452
OKLAHOMA COUNTY—		
H. H. Patton et al, Short 1, csl nw nw sw 10-11-3w 4hrs	2175	6460
I.T.I.O. et al, Trosper 7, sw se ne 14-11-3w 11½hrs	420	6200

For Tabulation and Comparison See Market Section

Company, Well and Location	Initial Production Bbls.	Depth
Johnson & Dabney, Foote 1, ne c nw se ne 10-11-3w 8hrs	8410	6360
Blackwell O&G and Jones Drlg. Co., Garr-Bage 1, nw c se nw se 35-12-3w 8hrs	2925	6410
OKMULGEE COUNTY—		
McDonald et al, Tiger 1, sw c nw 19-16-14e	*	1710
Laswell et al, Johnson 3, nw se se 27-13-13e	*	1900
POTTAWATOMIE COUNTY—		
Payne et al, Bullock 5, se sw ne 22-6-3e	700	3625
SEMINOLE COUNTY—		
J. E. Crosbie, Inc., Robinson 1, nw se ne 30-8-8e	*	4240
Amerada Pet. Corp., Tiger 4, nw se sw 3-8-5e	*	4157

EASTERN STATES

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
TIOGA COUNTY—		
Penn-Ohio Gas Co., Close 1	¶40	4018
ALLEGHENY COUNTY—		
Chemical O&G Co., Unknown 1	10	....
J. H. Morrow & Co., Campbell Hrs 2	1	1700
BEAVER COUNTY—		
Edward McCoy, McCoy 1	*	1700

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
KANAWHA COUNTY—		
Winifrede Co., Fee 11	¶¼	1391
Fee 13	¶½	1760
Cunningham & Canterbury 1	¶¼	1740
CABELL COUNTY—		
Hamilton Gas Co., Clark L-14	¶¼	....
Larner Gas Co., Hanley 85	¶¼	....
W. H. Kirtley & Co., Sunderland 1	¶¼	....
CALHOUN COUNTY—		
United Fuel Gas Co., Shaffer 4280	¶¼	2225
Hively & Co., Hall Hrs. 1	¶¼	1556
Conservation Oil & Gas Co., Kirby 1	¶¼	2551
Richter Oil Co., Haught 5	2	1960
MONONGALIA COUNTY—		
South Penn Oil Co., Tennant 2	15	3361
BOONE COUNTY—		
Winifrede Co., Fee 7	¶¼	3607
RITCHIE COUNTY—		
Joshua Haught, Fee 2	5	1925

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
HART COUNTY—		
C. E. Daugherty & Co., Hand 1	350	....
Dr. S. J. Sirman, Hensley 1	150	....
Pearson Petroleum Co., Roberts 1	¶½	726
Tichenour & Mann, Terry 1	*	794
HANCOCK COUNTY—		
D. T. Bolling, Richards 3	10	240
HENDERSON COUNTY—		
Pearson Petroleum Co., Parker 2	10	....
GREEN COUNTY—		
Barren County Oil & Gas Co., near Hudgins 1	35	548
Treamers & Co., Aikin 1	15	....
WEBSTER COUNTY—		
Wittmer Oil & Gas Co., Powell 3	¶½	....
I. J. Browning & Co., Melton 1	¶½	....
McLEAN COUNTY—		
Pampas Oil & Gas Co., Shockley 1	10	....
Mel Root & Co., Central State Bank Land 2	10	1700
OHIO COUNTY—		
H. C. Smith & Co., White 1	*	....
Jenkins & Co., Bellamy 1	¶¼	....
Kentucky Natural Gas Co., Griffith 6	*	500
KNOX COUNTY—		
Distill-Martin Gas Co., Helton 3	¶1	2100

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MORGAN COUNTY—		
Ohio Fuel Gas Co., Kennard 3	¶¼	1423
NOBLE COUNTY—		
Ohio Fuel Gas Co., McClintock 1	¶½	1802
MONROE COUNTY—		
Myers & Gerber, Robins 2	*	1795
WASHINGTON COUNTY—		
Bentz Oil Syndicate, Cline 4	3	1830
John Wynn & Co., Wynn 10	2	905

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MEDINA COUNTY—		
C. L. Williams, Chapman 2	1	436
M. P. Colt & Co., Jelensics 14	20	334
Preston Oil Co., Clapp 18	40	448
The Kemrow Co., Rhader 3	¶1½	2958
Edson Sons Co., G. W. Packard 14	*	417
Edson Sons Co., Frank 14	50	471
PERRY COUNTY—		
Bell & Scholl, Stansberry 1	¶¼	3 ....
PICKAWAY COUNTY—		
Unknown, Kisco Valley Land 1	¶¼	95
ATHENS COUNTY—		
Ohio Fuel Gas Co., Clester 4	¶¼	1571
BELMONT COUNTY—		
John Kirk & Co., Henderson 1	¶¼	1961
COSHOCTON COUNTY—		
Preston Oil Co., Oxley 1	¶½	3070
FAIRFIELD COUNTY—		
City Natural Gas Works, Lutheran Parsonage 1	¶¼	2554
MUSKINGUM COUNTY—		
W. H. Atha, Atha 3	¶4½	3574
STARK COUNTY—		
Penn Oil & Gas Co., Killinger 2	¶¾	4173
ASHLAND COUNTY—		
Ohio Fuel Gas Co., Pauly 1	*	....
HOCKING COUNTY—		
Kelch Bros., Lehman 3	*	825
GUERNSEY COUNTY—		
Ohio Fuel Gas Co., Alexander 1	*	3597
WAYNE COUNTY—		
Barnhart & Co., Garvin 1	*	3135
SUMMITT COUNTY—		
Kime & Co., Vaughn 1	*	3915
RICHLAND COUNTY—		
Ohio Fuel Gas Co., Dunn 1	*	....

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
WYANDOT COUNTY—		
Jones & Coyle, Chaney 2	¶½	1575

INDIANA

Company, Well and Location	Initial Production Bbls.	Depth
PIKE COUNTY—		
H. H. Risher, Fair 1	*	1180
Chas. C. Taliaferro, Bilderback 2	¶1	1041

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
CRAWFORD COUNTY—		
W. C. McBride, Inc., Dickinson 1	*	1110

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
ARCHER COUNTY—		
King & Hays, DeMoss 1	*	1205
COOKE COUNTY—		
W. B. Hamilton et al, Jacobs 3	*	1580
WICHITA COUNTY—		
R. R. Clark et al, Bickley 13	80	877
C. R. Conyers et al, Woodward 1	*	1010
D. C. Thomas et al, Burnett 1	*	900
The Texas Co., Waggoner 394	25	1011
NORTH YOUNG COUNTY—		
B. C. Banner et al, Jeffrey (Sec. 51) 1	*	912
Beavers et al, Finch 1	*	752
W. E. Bernhard et al, Belknap 1	*	700
McBest et al, Husted 1	*	1125
Jas. McKanna & The Texas Co., Finch 6	55	677
Finch 7	*	724
McClung-Dawson et al, Williams 1	*	636
E. C. Reed et al, Tatum 1	45	662
C. H. Robertson et al, Boyd 1	*	630
W. R. Stafford et al, Kay 1	*	512
Watson et al, Terrell 1 (Sec. 255)	*	740
Wooten & Reed, Jordan 3	*	700

CENTRAL WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
COLEMAN COUNTY—		
Anderson & Taylor-Link Oil Co., Stewardson 1	40	1707
Arcadia Ref. Co., Burkett 1	110	1650
Arcadia Ref. Co. et al, Golson 5	350	1589
G. P. Mitcham et al, Thate 1	*	1600
PALO PINTO COUNTY—		
Brazos River Gas Co., Crossland 1	*	4101
Texas. Roy. & Utilities Co., Thomas 1	15	1137
STEPHENS COUNTY—		
Lone Star Gasoline Co., Henry 4	*	3495

WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
PECOS COUNTY—		
Southern Oil Corp., Tippett 2	300	500

CENTRAL EAST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
GREGG COUNTY—		
Arkansas Fuel Oil Co., R. S. McKinney 1	15,000	3600
Frank Foster-East Texas Ref. Co., Fisher-Rodden 1	3000	3542
Roeser-Pendleton, Inc., Foster-East Texas Ref. Co., B. E. Rodden 1.	15,000	3592
RUSK COUNTY—		
Geo. S. Anderson-Cox et al, W. H. Frederick 2	3000	3640
A. Thrash (17½-ac) 1	1500	3702
L. P. "Pink" Hammond et al, Camp 1	500	3588
Humble O&R Co., L. D. Crim 4	12,000	3708
Ben Laird 1	10,000	3647
Peterson 1-A	15,000	3656
H. L. Hunt et al, Mayfield Alford 1.	2100	3661
Petroleum Marketing Corp., W. M. Camp 1	2000	3568
Shaw Oil Co. et al, Ashby (2½-ac) 1-A	2500	3670
Shaw Oil Co.-Heep Oil Corp.-Imperator Oil Corp., A. Thrash (3-ac) 1	2500	3693
Sinclair O&G Co., W. W. Holland 4	1500	3695
VAN ZANDT COUNTY—		
Pure Oil Co., A. D. Clark (24-ac) 9	500	2916
R. A. Enas (64-ac) 1	1500	2940
J. T. Jarman 6	¶7	2956
R. L. Wells 12	6000	2955
Shell Pet. Corp., E. L. Fowler (32.65-ac) 9	10,000	2951

TEXAS PANHANDLE

Company, Well and Location	Initial Production Bbls.	Depth
CARSON COUNTY—		
Ochsner et al, E. J. Moore 1	¶50	2725
Plains Dolhing Co., C. Kalka 1-A	¶55	2665
GRAY COUNTY—		
Magnolia Pet. Co., J. S. Morse 1	¶2	2631

LOUISIANA GULF GOAST

Company, Well and Location	Initial Production Bbls.	Depth
BAYOU CHOCTAU—		
Texas Gulf Sulphur Co., Wilbert 8	*	1292
EDGERLY—		
Rex Pet. Co., Hunter 5	500	3750
STARKS—		
Gulf Ref. Co., Lutcher & Moore 10	15	4200

TEXAS GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
ALLEN DOME—		
Mills Bennett Prod. Co., Reese 2	*	5583
HARRIS—		
Gulf States Oil Co., Augspurger 1	*	5550
LAVACA COUNTY—		
Cranfill-Reynolds Co., Hermes 1	*	4540
MONTGOMERY—		
John Deering et al, Knight 1	*	4686
RACCOON BEND—		
Humble O&R Co., Paine 8	*	1126
Paine 11	*	3679
WEST COLUMBIA—		
Don Anderson et al, Smith 1	*	4200

SOUTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
BEE COUNTY—		
Rowan and Hope's Mrs. Fannie Goree 1	*	4008
Simms Oil Co.'s Holzmark 2	*	3512
GOLIAD COUNTY—		
Slick Estate's Allen 1	¶40 & 60	4238
JIM HOGG COUNTY—		
J. D. Pulliam Jr's Jones 1	*	2844
LAVACA COUNTY—		
Cranfill & Reynolds' Hermes	*	....
ZAPATA COUNTY—		
Brooklyn Oil Co.'s Cuellar 1	*	1862
Grim & Yakey's Bustamente 2	*	1428
Lowe & Rogers' P. Benavides 1	*	1666

Field Operations in New East Texas Area

(*Continued from page 70*)

Operator—	Lens.	Derricks & Rigs	Active Tests	Total
Hill & Jack Younger	.	1	.	1
Horseshoe Syndicate	.	1	.	1
Humble Oil & Refg. Co.	1	13	5	19
Houston Oil Co.	.	2	1	3
H. L. Hunt et al	.	.	2	2
H. L. Hunt & Graddy H. Vaughn	1	1	.	2
A. R. Irwin et al	.	1	.	1
C. M. Joiner (E. R. Tennant, Rec.)	.	.	3	3
Ed. M. Jones-Houston Oil Co.	.	2	2	4
Jones Drlg. Company	.	.	1	1
K. & M. Oil Company	.	.	1	1
Karona Oil Co. (Heard)	.	.	1	1
La Salle & Davenport	.	1	.	1
Laster Oil Company	.	.	1	1
Laster Oil Co. & Deep Rock	.	.	2	2
Laster Oil Co. & Miller	.	1	.	1
Louisiana-Texas Oil Corp & Lyons	.	.	1	1
Leonard Petroleum Co.	.	1	.	1
Lewis-Prod. Co.	.	.	1	1
Lide-Taylor Oil Company	.	.	1	1
Lide-Rowe Oil Company	.	.	1	1
Lively & Bryan	.	.	1	1
Luling Oil & Gas Co.	.	1	1	2
John E. Mabee, Inc.	1	.	2	2
Magnolia Pet. Co.	.	4	4	8
Marine Corp. et al	2	1	1	2
Chas. McDonald-Merrick Drl. Company	.	.	1	1
McIntyre Drilling Co.	.	1	.	1
Merrick Drilling Co. et al.	.	.	1	1
Mid-Kansas Oil & Gas Co.	.	.	1	1
Morefield Drilling Co.	.	1	.	1
H. S. Moss & Pete Urschel	.	.	1	1
Moss et al	.	.	1	1
Navarro Oil Co.	.	1	.	1
Oliver & Brown	.	1	.	1
Ilsen Bros. et al	.	2	1	3
John W. Olvey & Sample	.	.	1	1
Pearl Oil Co. (Vitek)	.	1	1	2
Petroleum Marketing Co.	p.	.	3	3
A. W. Phillips-Trico Oil Co.	1	2	.	3
W. B. Pierce et al	1	.	.	1
Pilot Oil Co. (Tom E. Cranfill)	.	1	.	1
Pioneer Oil Co. (Moody-Seagraves)	.	3	3	6
Jim Pollard et al	1	.	.	1
Perry et al	.	1	.	1
Republic Prod. Co.-Lewis Hart	.	1	.	1
Robert Oil Corp. et al	.	.	1	1
Robertson Drilling Co.	.	1	.	1
Rusk County Oil Co.	.	1	.	1
Jim Rush (now McMillan) et al	.	1	.	1
Nat Sadler et al	.	.	1	1
Shasta Oil Co.	.	1	1	2
T. G. Shaw Interests	.	1	.	1
Bert J. Shaw Oil Co. et al.	.	1	1	2
Shell Pet. Corp.	1	.	.	1
Sinclair O&G Co.	.	.	5	5
H. R. Smith-Gulf Prod. Co.	.	2	.	2
Stanolind Oil & Gas Co.	.	.	2	2
H. R. Smith-Houston Oil Co.	.	1	.	1
Snowden & McSweeney Co.	1	1	.	2
Texas Inland O&G Co. (G. W. Basom)	.	1	.	1
Tidal Oil Co.-Wm. Johnston	.	1	1	2
Turman Oil Company	1	.	2	3
C. E. Upchurch et al	.	1	1	2
W. D. Walton et al	.	1	.	1
Ward Oil Corp.-J. R. Elliott-Johnson	.	1	1	2
Ward Oil Corp.	.	.	1	1
Warner-Quinlan Co (now Houston Oil Co.)	.	1	.	1
Westexas Oil & Roy. Corp.	.	1	1	2
Westheimer-Daube-Cox & Hamon	1	1	1	3
Witherspoon Oil Co.	.	.	1	1
Woodley Petroleum Co.	.	2	.	2
Total	19	95	111	225
Total previous week	16	104	86	206

GREGG COUNTY OPERATIONS

Operator—	Lens.	Derricks & Rigs	Active Tests	Total
Alco Oil Corporation	.	1	.	1
Jule Alford et al	.	1	.	1
Arkansas Fuel Oil Co.	.	3	1	4
Arkansas-Yount-Lee Oil Co.	.	1	2	3
Barkley & Lincoln	.	1	.	1
Claude Bell & R. A. Gaddy, Inc.	.	.	1	1
W. L. Brandon-McCamey et al	.	.	1	1
D. H. Byrd-Gulf-Humble et al	.	1	1	2
Cranfill-Reynolds Co.	.	1	.	1
Daisy Oil & Gas Co.	.	1	.	1
Davis & Russell	.	1	.	1
Daniel & Tom C. Patten	.	1	1	2
Joe DeGlazier et al	.	1	.	1
Harry W. Elliott et al	.	.	1	1
E. E. Eslick & Little	.	1	1	2
Frank Foster-East Texas Refining Co.	.	.	.	.
Mamie Hammonds-Clark et al	.	.	1	1
O. L. Hickman et al	.	.	1	1
Holloway & Hardin	.	1	.	1
Ed. B. Hopkins & A. R. Byrd, Jr.	.	.	1	1
W. D. Humphrey et al	.	1	.	1
S. F. Hurlburt et al	.	1	1	2
Lacey et al	1	.	.	1
Leonard Petroleum Co.	.	1	.	1
Lide-Hunter-Rowe	.	.	1	1
Magnolia Petroleum Co.	.	2	2	4
K. E. Merren-Miller-Van Horn	.	.	1	1
Navarro Oil Co.	.	.	1	1
Phares & Sample	.	1	.	1
Primrose Pet. Co.-Penn-Worth Oil Prod. Co.	.	1	.	1
W. C. Ray Drilling Co.	.	.	1	1
C. Rosenfield et al	.	1	.	1
Roeser-Pendleton, Inc. et al.	.	1	.	1
Robert et al	.	1	.	1
Jim Rush-Simms-Hubbard	.	.	1	1
Selby Oil & Gas Co.	.	1	1	1
Shell Petroleum Corp.	.	.	1	1
R. C. Showalter et al	1	.	.	1
Smith et al	.	1	.	1
Stanolind O&G Co.-Simms Oil Co.	.	1	1	2
Sultan Oil Company	.	.	1	1
Tidal Oil Co.	.	.	1	1
Tidal-Jim Evans & J. K. Wadley	.	1	.	1
Paul Vitek et al	.	1	.	1
J. A. Weir et al	.	1	.	1
J. Z. Werby & McMinn et al	.	1	1	1
Winona Oil Co. et al	.	1	.	1
Ben Youngblood et al	.	1	.	1
Total	2	33	25	60
Total previous week	5	25	18	48
Total both counties	21	128	136	285
Total previous week both counties	21	129	104	254

Permits Granted For New Wells

▼ ▼ ▼

ARKANSAS

LAFAYETTE—L. L. McDonald, H. Reid 1, 300 ft n and 300 ft w se cor nw¼ nw¼ 16 15-22.

OUACHITA—M. S. & M. Oil Co., Arnold & Doyle 3, 150 ft n and 150 ft w sec cor se¼ se¼ 23-15-16.

UNION — Marine Oil Co., Thompson 4-B, 330 ft s and 330 ft w ne cor se¼ ne¼ 10-18-13; Thompson 1-E, 330 ft n and 330 ft w se cor nw¼ ne¼ 10-18-13.

CALIFORNIA

BELRIDGE — Belridge Oil Co., No. 49-35, 35-27-20. Continental Oil Co., Result 2, 36-27-20.

COYOTE HILLS—Standard Oil Co., Emery 49, 24-3-11; Murphy-Coyote 107, 19-3-10.

KERN COUNTY—Alpine Oil Co., DiGiorgio 1, 13-31-29.

LONG BEACH—Dabney-Johnston Oil Corp., No. 84, 29-4-12. The Hancock Oil Co., Signal 23, 19-4-12.

MT. POSO—General Pet. Corp., Heisen 14, 16-27-28.

PLAYA DEL REY—Sam B. Herndon Oil Co., Herndon 2, 28-2-15.

SANTA BARBARA COUNTY—Sunset Pacific Oil Co., Pomatto 1, 12-4-29. George W. Johnson, Duncan 1-A, 4-28.

SAN MATEO COUNTY—Easton and Monell, No. 1, 25-3-6.

KANSAS

HARVEY COUNTY—F. H. Hollow et al, School lot 1, sw c nw 20-22-3w.

McPHERSON COUNTY — Helmerick and Payne, Koehn 2, ne c se 12-20-2w; Lario O&G and Shell Pet., Sellers 1, sw c ne 31-19-1w; Reynolds, Unruh and Shell, Koehn 1, se nw sw 36-19-2w; Wolfe Creek Oil Co. and Sinclair O&G, Krehbiel 1, ne nw nw 25-19-2w.

RENO COUNTY—Shell Pet. Corp. and Continental Oil Co., Blake 1, sw se se 23-23-4e.

SEDGWICK COUNTY — Derby Oil Co., Eastborough 5, ne c sw ne 19-27-2e; Magnolia Pet. Co., Wheeler 4, cel nw se ne 19-27-2e.

OKLAHOMA

CARTER COUNTY—Magnolia Pet., Burton 1, nw se nw 30-1s-2w; The Texas Co., Eaves 1, ne sw sw 24-1s-3w.

CREEK COUNTY—Atlantic Oil Prod. Co. et al, Fuel 1, sw c nw 26-14-10e; Phillips Pet. Co., Charles 5, sw se se 25-15-7e; J. E. Wallace et al, Baker 1, se c ne nw 14-17-10e (owd); Westfall Drlg. Co., Chatham 1, nw c ne sw 32-19-9e; Johnson O&R, Cordell 1, sw c se sw 17-19-9e; C. O. Buckles et al, Bruner 1, ne c sw sw 3-19-9e; Gled Oil Co., Travis 2, c se ne 13-19-8e.

HUGHES COUNTY—Boettcher O&G, Schramm 1, c se nw 11-7-8e.

JEFFERSON COUNTY—W. H. Smith, McClarty 1, se nw ne 18-4s-8w.

MARSHALL COUNTY — Otto Reynolds, Rice 1, sw c se se ne 36-5s-5e.

MUSKOGEE COUNTY—J. H. McDonald et al, Durant 4, cnl ne ne 16-14-18e; Bramm Oil Co., Jackson 2, sw c nw 17-13-16e.

NOBLE COUNTY—Sinclair O&G, Waltermire 2, nw sw se 33-21-1w.

OKLAHOMA COUNTY—Westgate Oil Co., Carey 2, ne c se nw se 34-12-3w; Watchorn Pet. Co., Traders Compress 1, nw c se se 34-12-3w; L. G. Simon and S. P. McGinnis, McGinnis 1, ne c, se nw nw 10-11-3w; Wilcox & Marshall, Lot 1, se c nw nw 10-11-3w; Dengail Oil Co. et al, Ransom 1, ne c se sw nw 10-11-3w.

PITTSBURG COUNTY — Central Light & Power Co., Cother 1, sw c 9-7-18e; R. Vincent et al, 1, nw c se, 9-5-14e.

PONTOTOC COUNTY—C. E. Davis et al, Dyer 1, sw nw se 8-4n-7e.

POTTAWATOMIE COUNTY—Droppleman Drlg. Co., Jones 1, se c nw 21-8-3e; J. A. Hull, Townsend 2, nw se se 22-6-3e.

SEMINOLE COUNTY—Mil-Continent Pet. Corp., Tommy 1, se ne ne 25-8-7e.

STEPHENS COUNTY — G. L. Pace, McMasters 10, nw c sw ne ne 13-2s-8w.

For Tabulation and Comparison See Market Section

WAGONER COUNTY — Bailey et al, Replogle 6, se c nw ne 31-19-16e.

LOUISIANA

BOSSIER PARISH—R. O. Roy, Shreveport, W. H. Hodges, Jr. 1, 19-16n-10w, center of nw¼ of nw¼ of sec.

CALCASIEU PARISH — Gulf Refg. Co., Houston, J. W. Gardiner et al Fee 6, 33-10s-12w, apprx. 315 ft e and 350 ft n of sw cor se¼ of ne¼.

CAMERON PARISH — Federal Petroleum Co., Lake Charles, C. Hebert, Est. No. 2, 33-12s-10w, 660 ft s and 660 ft w of ne cor nw¼ of nw¼.

RICHLAND PARISH—Palmer Corp. of La., Shreveport, Earle No. 3, 25-17n-5e, 1320 ft s and 1394 ft w of ne cor of sec; Earle No. 4, 1-16n-5e, 1272 ft n and 4068 ft w of se cor of sec. Southern Carbon Co., Monroe, Rosengrant & Ducomb No. 1, 24-17n-5e, 2000 ft e and 660 ft s of nw cor of sec; Rosengrant & Ducomb No. 2, 19-17n-6e, 1980 ft n and 660 ft e of sw cor of sec; Rosengrant & Ducomb No. 3, 30-17n-6e, 660 ft s and 660 ft e of nw cor of sec.

SABINE PARISH — Jordan & Co. Inc., Monroe, La. Long Leaf Lbr. Co. No. 1, 3-7n-11w, 247.5 ft w and 660 ft n of se cor sw¼ of se¼. J. H. Thomas, Noble, La., Edwards Est. No. 1, 8-8n-13w, 150 ft n and 150 ft w of se cor ne¼ of se¼.

UNION PARISH—Fred A. Green, Monroe, U. S. Gov't No. 1, 26-20n-3e, 660 ft n and 1980 ft w of e¼ cor of sec. Nemours Corp., Shreveport, Pace & Hanley No. 1, 35-22n-3e, 660 ft n and 660 ft e of sw cor of sec; W. A. Stringer No. 1, 14-21n-3e, 957 ft n and 2180 ft e of w¼ cor of sec.

TEXAS

ARCHER COUNTY — Texas Co., Wichita Falls, J. T. Richardson, B, 80, 2, J. Scott sur, 1920 ft from n and 2840 ft from s line. King & Hayes, Archer City, A. J. DeMoss, 40, 1, C&P sur, 150 ft from n and w lines of Blk. 18. E. P. Hynes, San Antonio, J. T. Richardson, 40, 2, S 11, BBB&C sur, 1320 ft from n and 50 ft from w line.

AUSTIN COUNTY — Humble O&R Co., Houston, R. G. Paine, 12, W. C. White sur, 500 ft se of No. 9.

BASTROP COUNTY—C. E. Anderson, Jr., Austin, J. E. Harris, 68, 1, J. Gray sur, 150 ft from n and e lines.

BEE COUNTY — O'Neill & Catlett, Beeville, I. J. Miller, 303, 1, R. Hotchkiss sur, 160 ft from w and 3550 ft from s line.

BEXAR COUNTY — Auburn & Morrison, San Antonio, San Ant Farms, 7, 2, Blk. 69, Lot 20, 150 ft from s and e lines.

BURLESON COUNTY—Jos. Marek, Caldwell, Fee, 84, 1, N. A. McFadden sur, 158 ft from s and 525 ft from w line.

CARSON COUNTY—Texas Interstate Pipe Line Co., Amarillo, B. Heydrick, 80, 1, S 108, B 5, I&GN sur, center of s½ of sw¼. Gulf Prod. Co., Fort Worth, S. B. Burnett, 160, 1, S 34, B 5, I&GN sur, 1343 ft from n and 1339 ft from w li sec.

CALLAHAN COUNTY—Prairie Oil & Gas Co. & Tom Bryant, Cross Plains, R. M. Renfro, 234, 1, R. Henderson sur, 2050 ft from n and 150 ft from e line.

COLEMAN COUNTY — J. E. Bedingfield, Cross Plains, Connelly, 80, 1, B 29, CCSL sur, 150 ft from n and 1100 ft from e line. Neversuch Oil Co., Mexia, Wm. Burkett, 60, 1, No. 166, D. J. Holt sur, 105 ft from s and e lines; 2, 150 ft from n and e lines; 3, 300 ft sw of No. 1. Brown & Ekholm et al, Coleman, F. Golson, 40, 6, No. 164 I. Harris sur, 150 ft from n and 105 ft from e line.

CONCHO COUNTY — W. I. Betts, San Angelo, H. E. Wood, 160, 1, S 3, HE&WT sur, 1000 ft from e and 200 ft from s li sec.

COOKE COUNTY—Lloyd Oil Corp., Fort Worth, A. M. Dove, 37, 1, Kendall sur, 1347 ft from w and 150 ft from s li survey.

CHAMBERS COUNTY—Texas Co., Houston, J. F. Wilburn, 39, 5, H. Y. Griffith sur, 400 ft sw of No. 4.

CRANE COUNTY — C. C. Duffey et al, Midland, H. L. McClintic, 160, 3, S 205, B F, CCSD&RGNG sur, 1650 ft from e and 330 ft from n line.

DELTA COUNTY—The Delta Co., Cooper, M. Neathery, 26, 2, J. B. Alexander sur, 210 ft from e and 450 ft from s line.

GREGG COUNTY—S. F. Hurlburt, et al, Longview, L. L. Mackey, 80, 1, G. Y. Chambliss sur, 550 ft from w and 175 ft from s line. Stanolind O&G Co., Tulsa, G. B. Tenery, 10, 1, Wm. Robinson sur, 163 ft from n and 150 ft from w line. B. S. Skipper Oil Co., Longview, T. Snoddy, 7, 1, W. H. Castleberry sur, 150 ft from n and 260 ft from e line. Arkansas Fuel Oil Co., Shreveport, F. K. Lathrop, 94, A3, Wm. Robinson sur, 1335 ft from n and 1122 ft from e line; A2, 1710 ft from n and 1518 ft from e line. Tidal Oil Co., Fort Worth, G. B. Tenery, 25, 1, Wm. Robinson sur, 150 ft from w and 275 ft from s line. Cranfill & Reynolds Oil Co., Houston, J. M. Blackman, 36, 1, W. P. Chisum sur, 180 ft from e and 250 ft from s line. Barkley & Lincoln, Ranger, E. B. Prothro, 25, 1, I. C. Skillern sur, 150 ft from n and e lines.

GARZA COUNTY—Garza County Dev. Co., Lubbock, J. D. Justice, 640, 1, S 25, B 6, H&GN sur, 330 ft from s and e li nw¼ of se¼.

HARDIN COUNTY—Rio Bravo Oil Co., Houston, Fee, 158, C111A, J. F. Cotton sur, 200 ft n of No. 110A.

HARRIS COUNTY—Tilton & Perot, Houston, W. H. Jones, 1, 1, S 1028, BBB&C sur, 42 ft from n and 225 ft from e line.

JONES COUNTY—Ewmo Oil Corp., Abilene, J. W. Hoyt, 50, 1, No. 195 G. Martinez sur, 200 ft from s and w lines.

LOVING COUNTY—Ervin & Mahres Dev. Co., Pecos, McGinley, 218, 1, S 67, B 1, W&NW sur, 1825 ft from n and 1288 ft from w line.

RUSK COUNTY—Robert Oil Corp., Breckenridge, Carlton, 4, 1, M. J. Pru sur, 208 ft from n and w lines. Myerscough & Merrick, Wichita Falls, N. Cooper, 15, 1, T. J. Moore sur, 150 ft from s and e line. Cranfill & Reynolds Oil Co., Houston, C. Young, A, 10, 2A, M. J. Pru sur, 165 ft from n and 150 ft from w line. W. H. Dunning, Jr., Fort Worth, C. V. Young, 10, 3, M. J. Pru sur, 150 ft from s and e lines. Markham & Dunning, Fort Worth, J. N. Peterson, 25, 5, R. E. Winn sur, 150 ft from s and e lines; 2, 150 ft from n and w lines. Sinclair O&G Co., Fort Worth, D. Bradford, 75, 1, J. Ximinez sur, 150 ft from n and w lines. Gulf Prod. Co., Houston, F. Birdsong, 99, 1, W. P. Chisum sur, 150 ft from s and e lines; R. M. Griffin, 14, 2, I. Ruddle sur, 150 ft from n and w lines; R. M. Griffin, 51, 3, I. Ruddle sur, 1656 ft from e cor and 150 ft from se line. J. E. Mabee, Arp, E. A. Thrash, 18, 1, J. Ximinez sur, 200 ft from s and 238 ft from w line; 2, 200 ft from n and 238 ft from w line. Moss & Urschel, Dallas, Mayfield-Alford, 10, 2, J. Ximinez sur, 176 ft from n and 200 ft from e line. W. B. Hamilton et al, Wichita Falls, W. M. Camp, A, 30, 4, J. Ximinez sur, 1550 ft from w and 252 ft from s line. Wm. Jobe Est., 109, 4, J. Ximinez sur, 1590 ft from w and 240 ft from s line; 3, 1110 ft from w and 240 ft from s line; 5, 2070 ft from w and 240 ft from s line. Humble O&R Co., Houston, L. D. Crim, 628, 11, E. G. Sevier sur, 200 ft from s and 631 ft from e line; 10, 200 ft from s and 977 ft from e line; R. H. Laird, 112, 1, Ruddle & Chisum sur, 200 ft from n and e lines; B. Laird, 162, 2, I. Ruddle sur, 1239 ft from w and 1010 ft from n line; S. S. Laird, 230, 2, I. Ruddle sur, 150 ft from n and w lines; 1, 150 ft from e and 3692 ft from s

(Continued on page 89)

Wildcat Reports From All Sections

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CENTRAL EAST TEXAS

Completions

HENDERSON COUNTY—		
E. L. Chapman et al, Cade Bros. 3	*	5090
LIMESTONE COUNTY—		
Geo. B. McCamey et al, Kosse Townsite 1-A	*	1691
RUSK COUNTY—		
Capp-Smith et al, J. L. Cochran 1	*	3802
Joe Burnham-Lloyd-Anderson, Nicely 1	*	3601

BOWIE COUNTY — Maud Redwater Oil Co.'s Merritt 1, Y. S. McKinney sur, sd 635 ft. Lee Timberlake et al's Tidwell 2, L. M. Rice sur, elev 290 ft, sd 720 ft.

CASS COUNTY—S. D. Hunter et al's M. Felker (66-ac) 1, John L. Chambers sur, elev 248 ft, rig. C. E. Murdock et al's G. W. Coody-First Nat'l Bank 1, Evans Watson sur, elev 401 ft, dr 415 ft. Olds-Smith et al's Joe Athney 1, J. C. Byers sur, sd 1600 ft. John C. Rogers et al's W. Q. Henderson 1, Wm. Davis sur, elev 354 ft, coring 820 ft; Lanier 1, K. A. Welborn sur, elev 366 ft, cas froze 1920 ft. Smith-Adkisson et al's Wilson 1, Jas. Graham sur, dk. J. E. Smitherman et al's A. S. Fell 1, Farrell sur, elev 295 ft, top Pecan chalk 2405 or 2415 ft, sd 3002 ft.

CHEROKEE COUNTY—D. Harold Byrd et al's Fariss 1, elev 215 ft, dr 2915 ft. W. G. Gray et al's H. Kyle 1, Jas. McClain sur, lcn. McDonald Bros. et al's W. A. Newton 1, Thos. Quevedo sur, rig. Rowan & Nichols' Ousley 1, T. L. Smith sur, lcn. Wm. A. Stone et al's Blount-Decker 1, Ruddle-Selman sur, sp and sd.

DELTA COUNTY—Delta Development Co.'s Hays-Netherly 2, dr 2240 ft. Everetts Drlg. Co. et al's M. Sansing 1, J. B. Craig sur, dr 3005 ft. D. S. Hoad et al's J. J. Baker 1, R. Carson sur, elev 437 ft, sd 1550 ft. Worthington-Stedham et al's W. H. Dejernet 1, E. Chick sur, elev 492 ft, sd 1925 ft.

FRANKLIN COUNTY—Harper-Byers Oil Co.'s A. J. Laws 1, D. G. Rogers sur, dr 2590 ft.

HENDERSON COUNTY—E. L. Chapman's Cade 3, Pecan chalk 3073-3267 ft, Austin chalk 4385-4739 ft, top Woodbine sand 5051 ft, dry and abn in salt water 5090 ft.

LAMAR COUNTY—K. O. Bundy et al's G. S. Legate 1, J. V. Cheney sur, rig. Everetts & Allen's J. A. Guest 1, Luke Roberts sur, dr 1870 ft. Puritan Oil Co.'s Geo. Parr 1, R. Russell sur, lcn.

LEON COUNTY—Sun Oil Co.'s Ella Grayson 1, Marquette Blk., dr hard sand 2295 ft.

LIMESTONE COUNTY—R. H. Dearing & Sons & Imperator Oil Corp.'s B. B. Baron 1, E. Mabry sur, Pecan chalk 1622-1817 ft, base Austin chalk 2761 ft, dr 2920 ft. Geo. B. McCamey et al's Kosse Townsite 1-A, dry and abn 1691 ft. E. E. O'Byrne et al's S. W. Hancock 1, H. York sur, sd 1165 ft.

RAINS COUNTY—Rains County Oil Corp. (R. A. Westbrook's) Wm. Cates 1, Calvin Gage sur, sp.

RED RIVER COUNTY—E. L. Chapman et al's Morris-Guest 1, S. Larkin sur, elev 485 ft, reaming 2745 ft. Droppleman & Bundy's J. W. Cunningham 1, S. V. Chi sur, sd 2745 ft. Echols & Peters' E. Howison 1, W. Humphries sur, dk. Everetts & Allen's W. F. Bryan 1, P. Vaughan sur, dk. Pierson et al's J. R. Dellahunty 1, sp and sd. Johnson Pet. Co.'s Style 1, Dean sur, dr 2290 ft.

ROCKWALL COUNTY—A. W. Walker & Son et al's M. S. Jones 1, S. Simmons sur, sd 700 ft; Paul Snow 1, J. E. Sherwood sur, sd 926 ft.

RUSK COUNTY — Burnham-Anderson-Cameron & Lloyd Oil Corp.'s Nicely 1, Thos. Obar sur, elev 339 ft, top Pecan chalk 2210-2560 ft, Austin chalk 2940-3195 ft, top Georgetown lime 3201 ft, dry and abn 3601 ft. Capps-Smith et al's Cochran 1, elev 386 ft, Pecan chalk 2683-3011 ft, top Austin chalk 3475 or 3490 ft to 3594 ft, top Georgetown 3769 ft, dry and abn 3802 ft. Garoyln Oil Corp.'s E. C. Cary 1, John Piburn sur, lcn. R. W. Giles (Shreveport Prod. Co.'s) Newt Orr 1, Wm. Tippett sur dk. Daniel & Tom C. Patten's Mercer-Crews 1, M. A. Young sur, dk. J. Griffith et al's F. J. Lowe 1, Wm. Williams sur, dk. Laster Oil Co. & Miller's B. B. Gray 1, Jas. McLean sur, dk. Moss et al's Hamp Matthews 1, elev 387 ft, sd 2710 ft. Leonard Pet. Co.'s Adams 1, S. C. George sur, dr 2620 ft. Pearl Oil Co. (Paul Vitek's) Eaton 1, F. Cordova sur, top pecan chalk 2714 ft, dr 2770 ft. Rusk County Oil Co.'s Robertson 1-A, junked 1201 ft, skid rig. Nat Sadler et al's Ed. Sparks 1, Abner Nail sur, sd 570 ft.

SMITH COUNTY—Big Indian Oil & Dev. Co.'s C. Mills 1, Jas. Jordan sur, elev 420 ft, rig. Howard Pet. Co.'s Lee Holt 1, Barnes Clark sur, lcn. C. M. Joiner et al's W. M. Wright 1, (4 mi e Tyler) dr 1010 ft. Guy Lewis et al's Cook-Green 1, Jas. Jordan sur, Pecan chalk 2737-3032 ft, top Austin chalk 3525 ft, dr 3575 ft. T. B. Slick & J. G. Kugle, Jr. et al's M. Freeman 1, A. J. Lagrone sur, elev 498 ft, Pecan chalk 2080-3275 ft, sd in Austin chalk 3623 ft.

UPSHUR COUNTY—Dr. F. F. Beeler et al's R. H. McClelland 1, M. P. Torres sur, dk. Tips DeArmand & Capps et al's Chas. Cobb 1, Marshall Mann sur, elev 428 ft, top Pecan 2590 ft, dr 2900 ft. J. W. McCullough et al's John Copeland 1, Marshall Mann sur, lcn. McGinley Corp.'s Reeves-Merritt 1, L. B. Brown 1, elev 358 ft, Pecan chalk 2570-2930 ft, Austin chalk 3487-3523 ft, dr 3815 ft. Penn Oil Co.'s O. B. Gage 1, J. B. Davenport sur, rig.

VAN ZANDT COUNTY—J. C. Fore & Geo. L. Pace's P. S. Hand 1, Wm. Sherman sur, elev 564 ft, Pecan chalk 2420-2444 ft, Austin chalk 3452-3893 ft, fsh 5160 ft. Kelly O&G Co.'s Lunsford 1, J. Conner sur, sd 2300 ft. Neil McElroy et al's R. W. Murphy 1, H. Bailey sur, sp and sd. Texas Chief Oil & Roy. Corp.'s Foster 2, F. Montgomery sur, materials. Van Oil Assn's J. C. Tankersley 1, L. Landers sur, sd 2000 ft. Wilson et al's Stribling 1, M. B. Fisher sur, sd 2200 ft.

VAN FIELD—Helms et al's C. E. Bogue 1, Marshall University sur, elev 461 ft, sd 3098 ft. Humble O&R Co.'s Blake 10, cem cas on oil sand 2695-2707 ft. Pure Oil Co.'s J. A. Bracken 3, rig; R. E. Cade 3, dr 1470 ft; B. E. Crim (40-ac) 2, cem cas 314 ft; Davis 1, dk; J. T. Jarman 6, completed as 7 million ft dry gasser 2956 ft; Jarman 7, dr 2010 ft; A. F. Magers 2, dr 180 ft; B. F. Smith 5, rig; W. F. Swain (20-ac) 4, dk; J. T. Thompson (50¾-ac) 10, dr 890 ft; A. R. Tunnell (101.2-ac) 6, cem cas 303 ft; R. L. Wells 5, dk; Ella York (39.6-ac) 3, sd 2455 ft; Ella York (41.1-ac) 4, dr 2593 ft; York 5, dr 110 ft. Sun Oil Co.'s T. J. Wallace 2, coring 2840 ft.

ABBREVIATIONS

NOTE—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls—barrels; b.s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in.—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd— shut down; sdtr—sidetracking; sp—spudding; sr — straight raming; std — standardizing; sw — salt water; td—total depth; ur—underreaming; wo—workover; wosr—waiting on standard rig.

EAST TEXAS

HARRISON COUNTY — Hunter et al's Daugherty 2, W. B. Burris sur, 12½ cas 245 ft, ta 3560 ft. Karona Pet. Co.'s A. J. Bohler 1, S. F. Sparks sur, elev 310 ft, top Nacatosh 1437 ft, dr 1465 ft. O. H. Parkening's T. J. Taylor 1, Walter H. Payne sur, rig; T. J. Taylor 2, J. C. Hawley sur, dk. Rowan & Nichols' Henry Pitts 1, E. A. Merchant sur, lcn. W. H. Hobson, Tr.'s, Taylor 1, Henry Vardeman sur, elev 284 ft, 12½ cas 355 ft, sd in chalk 2160 ft. Crump & Hannagan's Dunn 1, Bettie Humphries sur, elev 330 ft, 12½ cas 270 ft, base Pecan Gap and top Saratoga 2830 ft, sd 3560 ft. W. G. Ray Drilling Co.'s Hall 1, D. Davis sur, 10-inch 173 ft, sd in shale 2000 ft. Siegel Bros. et al's T. J. Taylor 1, F. O'Neal sur, lcn. Sinclair O&G Co.'s Davenport 1, J. V. Morton sur, dk.

MARION COUNTY — Trammell et al's Hussey 1, Chas. Lockhart sur, elev 282 ft, top chalk 1771 ft, 8¼ cas 1514 ft, junk in hole, ta 1878 ft. Rondeau & Hindman's McGaugherty 1, W. J. Wills sur, sd 2450 ft. Hindman et al's Lindesy 1, Alex Albright sur, sd 400 ft. Shasta Oil Co.'s Johnson 1, Wm. Mason sur, sp dr 60 ft. Eden Oil Co.'s Deware 1, R. Hazelwood sur, dk. Sinclair O&G Co.'s Wurtzbaugh 1, C. S. White sur, rig.

PANOLA COUNTY—Knott et al's Marion Durham 1, Chas. Haley sur, 6⅝ cas 2670 ft, pulling 5 3/16 cas at 2977 ft, showed 50,000 ft gas much sw at 2998 ft, td 3190ft Smith et al's Hunt 1, Albert Johnson sur, dk. Bell et al's Burnett Lbr. Co. 1, S. B. Hendrick sur, elev 186 ft, fsh bit, td 3228 ft. Warren & Dawes' McNeese 1, A. Booker sur, dk. Dillon & Bradham's Baldwin 1, Hampton West sur, 12½ cas 43 ft, sd 1188 ft. United Prod. Corp.'s Steele 17, B. C. Jordan sur, lcn (Trinity test). Neff et al's Brumble 6, B. C. Jordan sur, dk (Trinity test). Daisy O&G Co.'s Rucks Hrs. 1, Jno. Palmer sur, 12½ cas 780 ft, top chalk 1352 ft, cemtd 8¼ cas 1900 ft. Ark. La. P. L. Co.'s Werner Sawmill 3, B. C. Jordan sur, 12½ cas 142 ft, dr lime 3135 ft. Everett Prod. Co.'s E. L. McDaniels 1, Alamson Barr sur, blew out making ½ to 5 mil ft gas, 1500 bbls fresh water, cratered, skidding over for new hole, td old hole 398 ft.

SABINE COUNTY—Loring Oil Co.'s Nona Mills Lbr. Co. 1, Jas. Mason sur, ta 4803 ft.

SHELBY COUNTY — Sloane Prospecting Co.'s T. B. Sandford 1, M. M. Vann sur, rig. Chapparral Oil Co.'s Holt 2, Matthew Moore sur, sd wo rotary, td 3111 ft. I. M. Bradley et al's J. J. Asberry 1, G. W. Mitchell sur, dk. E. L. Chapman's Pickering Lbr. Co. 1, C. E. Henry sur, dk.

SOUTH TEXAS

BEE COUNTY—Alexander et al's McFall 1, 2 mi s Skidmore, ru. Catlett & O'Neill's Miller 1, Ronald Hoskiss sur, 8 mi w Beeville, prep to spud. Mauldin & Fisher's A. J. Kimball 1, Stephen Winship sur, 7 mi sw Pettus, dr 2360 ft. Hicks et al's Billingsly 1, B. Q. Hadley sur, one mi ne Grayburg well, dr 1930 ft. J. S. Mauldin's Mauldin 1, G. A. Kerr sur, just s Pettus Townsite, sand at 3847-54 ft, dst showed 125 pounds pressure and about 75 ft mud and gasoline in five minutes, setting casing. E. S. Price's Weiss 2, 900 ft sw No. 1, 3½ mi se Pettus, sd 4552 ft; Weiss 3, 900 ft ne No. 1, lcn. Rowan and Hope's Mrs. Fannie Goree 1, sec 4, T. B. Barton sur, 5 mi w Grayburg pool, abnd 4007 ft. Simms Oil Co.'s Holzmark 2, James A. York sur No. 333, abnd 3512 ft, originally completed as gasser, but salt water broke in, casing reset but could not perforate. United Prod Co.'s Ray 31, midway between townsite and discovery pool, G. A. Kerr survey, cap 3961-62 ft, sand 3962-69 ft, casing set 3961, prep to dr in; Ray 32, Habbermacher sur, 3 mi n Pettus pool, no report, last total depth 3918 ft; Ray 33, 700 ft sw Ray 31, Geo. A. Kerr sur, dk; Ray 35, Thos. Hanson sur, in extension area, ru; Ray 36, T. Hanson sur, n of extension wells, dk.

BEXAR COUNTY—Penn Oil Co.'s Cooksey 1, discovery, J. W. Rialls sur, 11 mi e San Antonio, put back on pump, total depth abt 1475 ft. Russell and Moore's A. O. Mills 3, Navarro sur, sd 938 ft. J. Morgan Russell's Price-Story 1, A. Navarro sur, build steel derrick, showing of gas in chalk 1019-24 ft. Uechert et al's Palfrey 1, 7 mi se SA near Brooks field, sd abt 1710 ft. Weilbacher and Brock's Ernest 1, 2 mi n Somerset, J. Christopher sur,

sd 925 ft. Wagener and Stieren's S. A. Irrigated Farms 1, G. Jayor sur, no report.

BROOKS COUNTY—Ed. East's Garzia 3, Las Mastena y Gonzalene grant, sd 960 ft (corrected). Houston Oil Co.'s Wormset Holbein 3, Palo Blanco de Maguellas Grant, dr 3834 ft.

CALDWELL COUNTY—J. E. Mills et al's McMahon 1, 6 mi se Lockhart, Pinchbach sur, pumped 30 bbls oil in 2 hours, total depth 2185 feet, made small head several hours later, now sd to repair machinery; McMahon 2, direct east off set, skid dk, prep to ru. V. F. Neuhaus et al & Camp's J. B. Moore 1, 6 mi s Lockhart, in William Clinton sur, 3-4 mi nw Mills test, ru.

COMAL COUNTY — Caldwell & Lanier's Byler 1, HE&WT sur No. S-894, prep to set 10-in cs 600 ft.

DUVAL COUNTY—Duval Oil Co.'s (Frasher and Schoolfield) Bishop Duval Land Co. 2, sec 135, completing in sand 2366 feet, casing set 2318 ft. Humble Oil & Ref. Co.'s Kohler 50, sur 164, Kohler pool, dr 5318 ft. Magnolia Pet. Co.'s Wilson 2, sec 134, dr 150 ft. O'Byrne et al's Weil Bros. 1, F.S.&F. sur 568. 7 mi sw S&O pool, dr 800 ft. Southern Oil Co.'s King Harper 2, sur 323, lcn. S.R.&C. Oil Co.'s and Vacuum Oil Co.'s Duval County Land Company 4, 300 ft w discovery well, sec 293, set 40 ft 8-in.

GOLIAD COUNTY — Gibson Oil Corp.'s Parks 1, (wo) 5 mi Goliad, mov on new rig to bail, show gas and oil at 4320 ft. Slick Estate's Riedel 1, 1830 ft sw Poetter well, W. C. Brown sur, ru; Allen 1, 1500 ft e and s discovery well, O. Marshall sur, completed as 40,000,000 cubic ft gasser, spraying 40 bbls gasoline, 100 pounds pressure on csg, 675 pounds on tubing, casing set 4197 ft, top pay 4198, bottom of hole 4238 feet.

GUADALUPE COUNTY—San Antonio Oil and Royalty Co.'s Dibrell 1, sec 6, H&TC sur, sw of field, lcn. Sun Oil Co.'s Dowdy 1, one-fourth mi s production, Jacob Darst sur, casing set 2570 ft, top Edwards 2587 ft, bottom of hole 2590 ft. Simms Oil Co.'s Manford 5, Manford pool, dk.

HAYS COUNTY—J. C. Jones' Rufus Byler 1, John Ingram sur No. 31, dr 800 ft.

JIM HOGG COUNTY—Mag. Pet. Co.'s Y. V. Cuellar 1, blk. 92, W. A. Dannelly sub, sur 575, share 2, E. Peyote Grant, ru. Peterman and Minahan's Palacios 1, 3 mi se Randado pool, blk 14, sur 231, ru. J. W. Pipping's Hinnant 1, blk 11, sur 147, dk. J. D. Pilliam Jr.'s Jones 1, Share 5-A, Holden sub, Diego, Hinjosa Grant, temp abnd 2844 ft.

JIM WELLS COUNTY—Blair & Son and Stewart's M. Perez 1, sec 9, blk 16, set casing 2110 ft, woc, sand 2123 ft. Carsill Oil & Gas Co.'s McGill 1, Wm. D. Baldwin sur, three mi n of Armagosa, cored sand 2685-89, show considerable gas, prep to complete. Gulf Prod. Co.'s Sheaffer 2, J. Pointevent sur No. 1, no report. R. Ewell's Doering 1, Seffeld Farm lots sub, cored sand 2118 ft.

KARNES COUNTY—Karnes County Dev. Co.'s W. J. Hubbard 1, 2 mi w Kenedy, dk. J. Morrisey's Ragsdale 1, dr 3010 ft.

KERR COUNTY — Evans & Gant's Seiker and Mears 1, sec 1605 ft, 2 mi ne Love test, fsh 300 ft. Mims et al's J. E. Young 1, sec 28, to spud.

LIVE OAK COUNTY—Pickett, Jacob and Buzzini's Kay 1, Bridget Faddin sur, 5 mi from Geo. West, dr 4150 ft. Houston Oil Co.'s Brown Land & Cattle Co. 4, sw corner M. B. Kivlin sur, casing set 2870 ft, wait on cement; Brown Land and Cattle Co. 3, nw corner M. B. Kivlin sur, sd 5573 ft. Markley et al's Brown 1, no report. Phillips Pet. Co.'s W. W. Goebel 1, Refugio School Lands, 3 mi ne Oakville, dr 3123 ft. Southern Exploration Co.'s Ponder 1, G. W. Tindol tract, B.S.&S.F. sur No. 1, dr 2938 ft.

McMULLEN COUNTY—V. F. Neugays & Standolin O&G Co.'s J. O. Massey 1, one-half mi s Loma Alto, ru.

NUECES COUNTY—Bess et al's Boorey 1, 2½ mi nw Saxet field, dr 3750 ft. Houston Oil Co.'s Ollie Purl 1-B, Agua Dulce pool, blk 7, R. Peters Sur Bo. 2, sand 5530, reaming down to test; Morgan 2, Saxet pool, casing set 4095 ft, wait on cement. Saxet O&G Co.'s Dunn 4, Saxet field, ru; Dunn 7, Saxet pool, dr 3850 ft. Moody-Seagraves Producing Co.'s Sedwick 1, just north of Saxet producing district, cored sand 3526 ft. H. H. Weinery's Mohle 1, sec 94, just south of Driscoll townsite, dr 5025 ft.

REAL COUNTY — Evans and Sprinkle's Marcus Auld 1, sec 15, blk D, H.E.&W.T. Ry sur, 4 mi ne Love test, setting 6⅝ 3485 ft. Gans and Kilgore and Eastland Oil Co.'s Dan Auld 1, sec 23, CCSD&RGNR Ry sur, 3 mi sw Love test, dr 1212 ft. Evans and Sprinkle's Haby 1, sec 175, A.B.&M. sur 7 mi sw Love 1, casing 1350 ft.

REFUGIO COUNTY — Houston Oil Co.'s Rooke 1-B, 2 mi sw Refugio, ½ mi w production, cored sand 6398 ft, odor of petroleum, testing; Rooke 14 (wo) in old gas area, three mi w Refugio, dr abt 4925 ft. Moody Seagraves Producing Co.'s St. Johns 1-B, s of Refugio, blk 14, setting line to test at 5478 ft where it was given light shot after plugging back from 5517 ft, where it showed salt water. Morgan and Rutherford's Rogers Heirs 1, one-fourth mi n Smith-Rogers well, 3 mi w Refugio, sd after testing sw 2684 ft. L. L. Smith's Rogers Heirs 2, 3 mi w of field, sd 5110 ft.

STARR COUNTY — Kush and Duerkson's Kelsey Bass 1, blk 9, sub of Porcion 75-76-77, Jurisdiction of Carmargo, sd 856 ft. Los Olmos Oil Co.'s Kelsey Bass 2, blk 6, sub of Porcion 75-76-77, jurisdiction of Carmargo, standing 881 ft. Sacremento O&G Co.'s Seabury et al 1, sd 349 ft.

UVALDE COUNTY—Waldrup and Welsh's Benson 1, sd 1620 ft. Phantom Oil Co.'s Claudt 1, sd 2710 ft.

VICTORIA COUNTY — The Texas Co.'s McFadden 3, McFadden pool, dk. United Prod. Co.'s McFadden 1-B, near Guadalupe river and Calhoun County line, dr 1825 ft.

WEBB COUNTY — Cole Pet. Co.'s Benavides 3, blk 7, sur 1613, dr 1213 ft. O. W. Killam's Killam 1, sur 1617, dr 2012 ft; Cuellar 4, Share 4, Cuellar Grant, dr 2514 ft. Geo. S. Marshall's C. W. Webster 3, sur 684, sd 4000 ft. Carolina Texas O&G Co.'s Barnsley 9, blk 13, sur 268, lcn.

ZAPATA COUNTY—Allied O&G Co. and Allen and Morris' Gutierrez 12, Muckelroy pool, share 4, Fansler Partition, Comitas Grant, sd 100 ft. Benson Oil Co.'s S. Vela 1, blk 12, sur 259, spudded 3-11-31. Brooklyn Oil Co.'s Cuellar 1, Cuellar pool, sur 119, abnd 1812 ft. Claypool & Nickson's Garza 3, blk 11, sub of Zorro ranch, Comitas grant, dr 600 ft. W. T. Bill Henry et al's Gopher estate 1, blk 10, sur 4, Fullerton sub of Share 8, Borrego Grant, dr 100 ft. Grim and Yakey's C. Bustamente 2, share 33, abnd 1428 ft. K.&P. Oil Co.'s A. Bustamente 4, Muckelroy pool, blk 6, share 5, Fansler Partition, Comitas Grant, testing sand, casing set 1365 ft, sand 1364-70 ft. O. W. Killam's Cuellar 40-C, Cuellar pool, sur 278, dk; Killam 4, Mirando Valley pool, blk 11, sur 182, dr 2548 ft. Lowe and Rogers et al's P. Benavides 1, blk 5, sur 11, abnd 1666 ft. A. R. McLehnan's Cuellar 2, Cuellar pool, sur 277, casing set 1555 ft, wait on cement, sand 1555-66 ft. Mid West Public Utilities Co.'s M. P. De Garza 1, blk 33, M. P. Garza tract, Pederal Grant, sd 1580 ft. P. H. Meyers' I. G. Trevino 1, blk 24, sur 412, Muckelroy pool, sd 900 ft. National Oil Co. of Texas' Luther et al 1, blk 97, Da Pron sub, ne ½ Porcion 6, dr 212 ft. Neilson and Coursey's Luther et al 1, blk 11, sec 5, Fullerton sub, share 8, Borrego Grant, dr 1050 ft. J. I. Newton's I. G. Trevino 3, blk 7, sur 66, lcn. B. F. Nixon's A. Gutierrez 1, lot 5, blk 8, Partition 10, Borrego Grant, sd 37 ft. John Pappas Pool Inc.'s Flores 1, 600 ft from Rio Grande, Porcion 35, dk. Penny Prod. Co.'s Cuellar et al 1, blk 1, sur 2, Pappas sub, Porcion 33 and 34, sand 1984-87 ft, testing. S. T. Phelps Trustee (Blankenship) Garza 2, blk 2, sur 413, test sw in sand 1764 ft. Shankle and Murray's F. Cuellar 1, blk 6, sur 61, 1516 ft. W. R. Shankle's Harza 2, blk 10, sub of Zorro ranch, Comitas Grant, completing in sand at 1401-10 ft, casing set 1401 ft. S. R. & C. Oil's Montemayor 5-D, sand 1300-18 ft, test sw and oil, casing set 1298 ft. F. A. Talmadge & F. Mackenzie's G. F. Trevino 1, blk 6, sur 4, Marts and Beavens sub of Porcion 2 and 3, sd 610 ft. T. H. Ward's Uribe 1, blk 8, sub of share 7, Partition 7, Trinidad Uribe Partition of Juan V. Borrego Grant, ru and standing.

WEST TEXAS

ANDREWS COUNTY—Deep Rock Oil Co. et al's Kuykendall 1, elev 3217 ft, top anhydrite 1678 ft, salt 1720-2810 ft, top lime 4045 ft, sd with small show oil with water 4648 ft.

BREWSTER COUNTY—Trans-Pecos O&G Co.'s Jones 1, elev 3073 ft, sd 2800 ft.

COCHRAN COUNTY—Continental Oil Co.'s Slaughter 1-B, elev 3809 ft, top brown lime 4070 ft, dr 4686 ft. Penn Oil Co. & Kiskadden's Slaughter 1, lcn.

COKE COUNTY—Reid-Hitchins & Stanolind O&G Co.'s Duncan 1, sp and sd.

CONCHO COUNTY—W. I. Betts & Dennis' Wood-Hendrick 1, dk. W. C. Beesley et al's Sam Waring 1, sd 267 ft. A. W. Turner-Cromwell & Wesner's Brosig 1, elev 1699 ft, co 1885 ft.

CRANE COUNTY—Continental Oil Co. & Frank Zoch's Cowden 2-B, top salt 680 ft, dr 1805 ft. Cranfill Bros. Oil Co. et al's Muir 1, sd in sulphur water 4452-57 ft. Cranfill & Gulf Prod. Co.'s J. B. Tubb 1, elev 2526 ft, salt 505-1400 ft, top brown lime 1410 ft, top white lime 2455 ft, flowing 16 bbls fluid per hour, 85 per cent water, dr gray lime-shells 5162 ft.

CULBERSON COUNTY—Cranfill Bros. Oil Co. et al's Seay 1, sd 1365 ft. W. L. Kornrumpf et al's W. D. Garren 1, sd 1225 ft.

DAWSON COUNTY—R. A. Albaugh et al's Robinson 1, sp and sd.

ECTOR COUNTY—Galt-Brown Co. & Penn Oil Co.'s Cowden 1, sd 180 ft. Southern Crude Oil Pur. Co.'s Cowden 2, elev 3965 ft, top

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anhydrite 1782 ft, salt 1872-2805 ft, dr 3930 ft. H. F. Wurtz et al's Ibbetson 1, temp. abn 3280 ft.

EDWARDS COUNTY—Phillips Pet. Co.'s Holman 2, elev 2274 ft, dr 7830 ft.

EL PASO COUNTY — Tri-State Oil Co.'s Bobadella 1, sd 540 ft.

FISHER COUNTY—Cranfill-Reynolds Co.'s Flannigan 2, dr hfw 3275 ft. Roeser-Pendleton, Inc.'s Gribble 1, elev 1864 ft, dr 2755 ft. Texas Unity Oil Co.'s First Nat'l Bank 1, dr 530 ft.

GARZA COUNTY—Penny & Porsey's Justice 1, sd 360 ft.

GAINES COUNTY—Texas Consolidated Oil Co. & TP Coal & Oil Co.'s E. H. Jones 1, elev 3636 ft, top salt 2225 ft, dr 2370 ft.

TOM GREEN COUNTY—Phillips Pet. Co.'s Gulden 1, elev 2016 ft, fsh 5050 ft.

HOWARD COUNTY—Continental Oil Co. & Group One Oil Corp.'s E. E. Brinkley 1, dr 725 ft. Greene Prod. Co.'s Denman 1, dr 160 ft.

HUDSPETH COUNTY—R. G. Patillo & Ed. Welch's K. S. Briggs 1, dr 200 ft.

IRION COUNTY—Brazelton Bros. & C. C. Williams (was Webb et al's) Williams 1, dr 1255 ft. Chas. Denny & W. R. Andrews' Tankersley 1, elev 2207 ft, testing oil production 1372 ft. Stanolind O&G Co.'s W. H. Williams 1, elev 2544 ft, dr 2340 ft. Straughn et al's Tankersley 1, elev 2306 ft, pb from 1506 to 1220 ft.

JONES COUNTY—Bonds-Trout-C. C. Julian & Gulf Prod. Co.'s M. J. Williams 1, elev 1898 ft, pumped 4 bbls oil 4 hrs and dry after shot, td 2581 ft. Condor Pet. Co.'s O. N. Brewer 1, lcn. Jake Croft & Tidal Oil Co.'s W. D. Swann 1, lcn. Ewmo Oil Corp.'s Hoyt 1, dr 790 ft. Hardly Able Oil Co.'s Butler 1, ur 1005 ft. J. L. Hart et al's Roberts 1, elev 1555 ft, temp. abn 1000 ft. J. B. Jameson et al's King 1, skid 160 ft to south of hole, junked at 1550 ft. Shaheen Oil Co. et al's J. T. Chittum 1, co with 100 ft oil in hole at 1972-74 ft. Ungren & Frazier's King 1, sp. Sam C. Yingling et al's E. D. Coates 1 ,rig; J. A. Williams 1, cem cas 2370 ft.

LOVING COUNTY—The California Co.'s J. G. Allen 2, elev 2742 ft, top salt 830 ft, dr 3555 ft; Allen 3, dr 110 ft; Allen 4, rig. Erwin & Mohres' McGinley 1, rig. Folbre & Evans' D. P. Dean 1, co 1100 ft. Grisham-Hunter Corp.'s Dean 1, ur 1030 ft. Henshaw et al's Reagan-McIlvain 2, rig. Pete Hoffman et al's Ramsey 1, dr 765 ft; Ramsey 2, rig. Lewis & Slagel Drlg. Co.'s Cartwright-Henderson 1, elev 2901 ft, salt 585-2907 ft, sd 2915 ft. C. H. Lockhart et al's F. W. Hubbard 1, top salt 715 ft, top Delaware 4175 ft, trace oil and sd 4190-4220 ft. Rush-Anderson & Moor's Wheat 1, lcn. F. S. Tennant et al's Roy Martin 1, rig. West Texas Pet. Corp. (Eppenauer's) J. G. Allen 2, top salt 810 ft, dr 3410 ft; Salisbury 1, top salt 890 ft, dr 2570 ft.

MENARD COUNTY—L. G. Priest et al's Sorrell 1, elev 2279 ft, sd 2695 ft. Voss & Bryan's F. Brandenburger 1, sd 400 ft. J. C. Barnett et al's Callan Co. 5, lcn.

PECOS COUNTY—Charlesworth-Messenger Oil Co.'s Butz 1, elev 2519 ft, sd 1290 ft. Disney & Gholson's C. O. Wilson 1, lcn. C. L. Dittman Oil Co.'s Eaton 2, lcn; Jackson 1, trace oil 1530-35 ft, sd in sulphur water 1545-96 ft. Magnolia Pet. Co.'s Eaton 1, elev 2426 ft, top salt 966 ft, ur 1422 ft. J. R. Miller et al's Bennett 1, sd 2285 ft. McCarty Oil Co.'s Gray 3, sd 1437 ft. Penn Oil Co. et al's J. B. Alvis 1, elev 3493 ft, ur 2407 ft. O. J. Perren et al's Eaton 2, elev 2437 ft, dr by tools 1765 ft. Pure Oil Co.'s Harrison 1, elev 3495 ft, top Delaware 4265 ft, sd 5000 ft. Riser & White's Riser 1, sd 500 ft and temp. abn. Tex-Mex Pet. Corp.'s Eaton-Pure 1, elev 2426 ft, top salt 940 ft, dr 1330 ft. W. F. Whittaker et al's M. A. Devlin 1, lcn.

REEVES COUNTY—The California Co.'s Kloh 2, ur 1389 ft.

RUNNELS COUNTY—Chas. Dutton et al's Dean 1, sd 2335 ft.

SCHLEICHER COUNTY — Eastland Oil Co. Unit Plan's Tisdale 1, elev 2295 ft, dr 1685 ft. Paul Teas & Walter Gant's Allison 1, elev 2311 ft, sd in sandy-lime 5006 ft. J. D. Wesner et al's Ratcliff 1, elev 2408 ft, dr 1105 ft.

SCURRY COUNTY — R. B. Pender O&G Co.'s Davis 1, elev 2208 ft, top salt 445 ft, fsh 5003 ft. Scurry County Oil Exchange's Earnest 1, lcn abn. Seifert & Dibble's Blackburn 1, top salt 720 ft, sd 2320 ft.

STERLING COUNTY—W. C. Beesley et al's W. L. Foster 1-A, elev 2518 ft, co 637 ft.

TAYLOR COUNTY — Adams-Ferguson & Hobbs' Lowe 3, elev 1918 ft, sd 1970 ft. J. B. Jameson et al's Webb 1, elev 1905 ft, dr 6304 ft. Sanger et al's Abilene Water Works 1, elev 1759 ft, sd 2785 ft.

TERRELL CONUTY — Mid-Kansas O&G Co.'s M. H. Goode 1, elev 2405 ft, making dry gas, dr 5890 ft. L. Jones et al (was Wooley & Jones') Pankenham 1, dr 665 ft.

VAL VERDE COUNTY—O. O. Owens et al's Mills 1, elev 2130 ft, sd 6780 ft.

UPTON COUNTY—Bennett Oil Co. & P. H. Williams' Shirk 1-A, dr with 250 ft oil in hole at 2556-70 ft. C. C. Duffey et al's McClintic 4, rig. G. E. Farley et al's Lane 1, elev 2800 ft, top salt 775 ft, sd with oil in hole 2345-91 ft. Gulf Prod. Co.'s McElroy 91, dr 2800 ft; McElroy 92, dr 1200 ft. Mintex Oil Co. et al's Lane 1, rig. B. F. Weekley Oil Corp. et al's McClintic 2, rig.

WARD COUNTY—Alpine Oil & Dev. Co.'s Boogher 3, dr 500 ft. Beckley et al's Johnson 1, rig. Bell & Weir's Boogher 1, dr 255 ft; Boogher-Cummings 1, rig. Buster Black et al's Hall-Roberts 1, lcn. Alex Bradford et al's B. Carson 1, dr 470 ft. Clyde Bradford et al's Hordage-Wilson 1, lcn. California Co. & Atlantic Oil Prod. Co.'s Gordon 1, coring 2167 ft. Gibson Bros. et al's Johnson 1, rig. Gulf Prod. Co.'s Hutchings 7, elev 2648 ft, top anhydrite 910 ft, top salt 1162 ft, cem cas 2365 ft; O'Brien 16, elev 2640 ft, top salt 1195 ft, top lime 2330 ft, flowing 22 bbls oil and dr broken pay 2577-2643 ft. Harkinson et al's A. Emory 1, lcn. J. G. Kugle et al's Chas. Wallis 1, swab and flow 75 bbls oil daily, td 2596 ft. Magnolia Pet. Co.'s Atlantic-Sealy 1, elev 2686 ft, ur 1905 ft. H. F. Owen et al's Johnson 1, elev 2499 ft, top salt 1600 ft, trace gas 2810 ft, dr 2825 ft. Peck et al's Geo. Merritt 1, rig. Prairie O&G Co.'s Hill 1, elev 2523 ft, top salt 975 ft, co and est 50 bbls oil 2285-2405 ft. Rickford & Fugler's Boogher 1, sd 495 ft. Paul Ryan et al's Allen 1, elev 2931 ft, top salt 800 ft, co with 1500 ft oil in hole 2180-2244 ft. Shipley Oil Corp.'s Hayzlett 5, top salt 725 ft, co with 1000 ft oil in hole after shot, td 2507 ft; Monroe 1-A, elev 2655 ft, top salt 2485 ft, fsh 3780 ft. Chester Smith et al's Boogher 1, dr 790 ft.

WINKLER COUNTY—Magnolia Pet. Co.'s Bashara 1, elev 2884 ft, top anhydrite 829 ft, top salt 996 ft, top lime 2317 ft, exhausted oil pay, dr 3125 ft; J. B. Walton 1, elev 2931 ft, top salt 1165 ft, top lime 2640 ft, dr 3025 ft.

TEXAS GULF COAST

AUSTIN COUNTY—O'Hara et al's Schrader 1, sd 3480 ft. Empire's Kunze 1, San Felipe, set liner to protect hole 6200 ft.

BRAZORIA COUNTY—Thos Faust et al's Fee 6, 2 mi s Nash Dome, sd 6220 ft. United Oil Synd.'s Speer 1, 3 mi n Danbury, dr 1560 ft shale. Mills Bennett's Randon 2, Allen, dr 5270 ft shale; Reese 2, abn 5583 ft in salt. Top of salt 4809 ft. Freeport Sulphur Co.'s Fee 2001, Bryan Mound, washing to bottom 5260 ft. Layne et al's Wisdom 7-A, Damon Mound, set 8¼-in cas 3652 ft. The Texas Co.'s Ewing 1, Manvel, dr 7560 ft; shale. Rycade & Amerada's Seaburn 2, Stratton Ridge, dr 7020 ft lime.

BURLESON COUNTY — Mid South Oil Co.'s Duckworth 1, 2 mi e Clay Station, sd 2598 ft. Reynolds Oil Co.'s Harris 1, 4 mi e Criesman, sd 400 ft.

CALHOUN COUNTY — The Texas Co.'s Smith 1, Chocolate Creek, dr 1750 ft gumbo.

FORT BEND COUNTY—Gulf's Moore 28, dr 4120 ft shale.

GALVESTON COUNTY—Mars McLean's Cade 20, ru.

GRIMES COUNTY—Wainwright-West Oils, Ltd. & Triangle Corp.'s Templeman 1, 6 mi s Navasota, dr 4540 ft water sand.

HARDIN COUNTY — Pearce & Proctor's Russell 40, Turnbow sur, lcn. The Texas Co.'s Fee 307, Sour Lake, stdg 3000 ft.

HARRIS COUNTY — Cypress Oil & Dev. Co.'s Kitzman 2, 2 mi n Cypress, t.a. 4430 ft. Gulf States Oil Co.'s Augspurger 1, abn in shale and lime 5550 ft. Ship Channel Oil Corp.'s Jones 19, Whiting sur, lcn. Smith-Hamill Drlg. Co.'s Parsons 1, Jones sur, lcn. Tilton & Perot's Fee 1, Pierce Junction, ru. Humble's Minnetex 5, ru. Kouri & Grayburg Oil Co.'s Bender 1, Pierce Junction, dr 4080 ft shale. Rio Bravo Oil Co.'s G. H. & S. A. 102, Pierce Junction, dr 3730 ft sand and shale, slight oil show. Smith et al's Fee 3, Pierce Junction, dr 3800 ft gumbo and lime. Warner-Quinlan's Minchen 2, Pierce Junction, dr 4140 ft shale.

JEFFERSON COUNTY—Humble's McFadden 1, 8 mi e Big Hill, dr 5750 ft shale. Keith et al's Reed-Hankamer 1, 3 mi ne Westbury, dr 3700 ft shale. The Texas Co.'s Pipkin 4, Big Hill, dr 4800 ft shale. Yount-Lee's McFadden 145, Humphrey sur, lcn.

LAVACA COUNTY—Cranfill-Reynold's Hermes 1, Ryan sur, abn 4540 ft shale.

LIBERTY COUNTY — Cranfill-Reynolds' Davis 7, Kokernut sur, dr 550 ft rock. Texas Gulf Sulphur Co.'s Carter 3, Moss Bluff, dr 750 ft gumbo. Hamm et al's Harvard 1, Davis Hill, sd 1000 ft. Gulf's Boyt 12, Hankamer dr 4000 ft sand. McFadden 3, Moss Bluff, dr 6020 ft shale. Humble's Breeden 2, Moss Bluff, dr 3400 ft shale; Sergent 2, Moss Bluff, dr 5570 ft lime; Sterling 7, Moss Bluff, 5750 ft shale.

MATAGORDA COUNTY — Cockburn Oil Corp.'s Hawkins 2, Shepherds Mott, sd 5170 ft. Empire's Boker 1, Citrus Grove 1, sdtr 5200 ft.

MONTGOMERY COUNTY — Jno. Deering et al's Knight 1, 6 mi s Conroe, abn in shale 4686 ft. Price & Wilhite's Juergus 2, 2 mi of Conroe, reported show 3552 ft.

ORANGE COUNTY—Crews Oil Co.'s Mansfield 1, Hill sur, dr 1270 ft gumbo.

WASHINGTON COUNTY—Yegua Oil Co.'s Graves 1, 3 mi n Independence, ru. Penn-Tex Oil Co.'s Kamas 2, Brenham, dr 1380 ft gumbo. Sun's Caraway 5, Sperry sur, set 7-in cas 1300 ft; Marcus 3, lcn.

OKLAHOMA

ALFALFA COUNTY—T 27n, R 11w, Sec. 12, Smith Bros.' Forbes 1, ne c se nw nw, sd 1420 ft.

KAY COUNTY—T 27n, R 2e, Sec. 9, Mummer et al's Sornick 1, nw c se, hfw 2070-2170 ft, ur 8-in 2330 ft. T 26n, R 1w, Sec. 32, Boucher et al's Jefferson 1, ne c sw, sd 950 ft.

HARPER COUNTY—T 25n, R 20w, Sec. 12, Empire's Bruce 1, sw c ne ne sw, sd 7935 ft.

GRANT COUNTY—T 25n, R 4w, Sec. 22, Cowden's Collmer 2, ne c se ne sw, sd 5640 ft, lost tools.

ALFALFA COUNTY—T 24n, R 11w, Sec. 14, J. V. Bailey et al's Acre 1, c sw ne, sd 4970 ft.

GARFIELD COUNTY—T 24n, R 6w, Sec. 9, Pulse, Beamer et al's White 1, se c nw, sd 5833 ft, crooked hole.

NOBLE COUNTY—T 21n, R 1e, Sec. 12, Barnsdall et al's Miksch 1, nw c sw, sd 4849 ft.

BLAINE COUNTY—T 19n, R 10w, Sec. 13, Washoma Pet. Co.'s Phillips 1, c nw sw, sd hfw 4535-37 ft.

LOGAN COUNTY—T 18n, R 3w, Sec. 33, Healey et al's Quier 1, se sw, sd 3970 ft.

KAY COUNTY—T 28n, R 3e, Sec. 24, Summitt Drlg. Co. et al's Hays 1, nw ne nw, sd 1915 ft.

OSAGE COUNTY—T 28n, R 7e, Sec. 4, L. G. Stanley et al's 1, se c sw, sd 1895 ft.

PAWNEE COUNTY—T 23n, R 5e, Sec. 15, Cochran et al's McFadden 1, ne c sw, rig. T 22n, R 5e, Sec. 2, Sherry et al's Milsap 1, se c sw, sd 1750 ft. T 20n, R 5e, Sec. 6, W. A. Rookstool's Berry 1, nw ne sw, sd 1950 ft.

LINCOLN COUNTY—T 13n, R 6e, Sec. 8, Atlantic's Beebe 1, sw ne sw, lcn.

OKFUSKEE COUNTY—T 12n, R 10e, Sec. 3, Shepperd's Shepperd 1, se nw sw, sd 3690 ft.

PITTSBURG COUNTY—T 9n, R 16e, Sec. 32, Pattison et al's McDuff 1, sw nw se, 5682 ft, td sd. T 8n, R 14e, Sec. 14, C. O. Cannady's Smith 1, sw c ne nw nw, rig and tools. T 7n, R 14e, Sec. 5, C. O. Cannady et al's Travis 1, c sw ne, rig. T 6n, R 15e, Sec. 7, Perrine et al's Ringland 1, nw c ne, sp and sd.

LATIMER COUNTY—T 6n, R 18e, Sec. 4, Choctaw Gas Co.'s Weaver 1, c ne nw, dr 800 ft. T 6n, R 19e, Sec. 16, P. English et al's Weaver 1, c nw se, sd 300 ft.

ATOKA COUNTY—T 1n, R 15e, Sec. 9, Edgerton et al's Roland 1, c nw, sd 700 ft.

OKLAHOMA COUNTY—T 12n, R 4w, Sec. 17, C. F. Cuniff, Trustee's St. Joseph 1, sw ne sw se, sd 6700 ft, td.

SEMINOLE COUNTY—T 10n, R 6e, Sec. 19, Bunte et al's Bruner 1, se c sw, rig.

HUGHES COUNTY—T 7n, R 9e, Sec. 17, Gilcrease's Buckner 1, ne nw se, dr 3580 ft.

ROGER MILLS COUNTY—T 13n, R 21w,

Sec. 10, Richfield O&R's Hiatt 1, se c, rig. T 12n, R 24w, Sec. 23, Ute Oil Co. et al's Williams 1, c sw, dr 3510 ft. T 11n, R 26w, Sec. 4, J. J. Rook et al's Davis 1, c nw ne (owd), sd 2840 ft.

CANADIAN COUNTY—T 10n, R 6w, Sec. 1, J. V. Bailey's Robinson 1, c ne nw, sd 150 ft.

CADDO COUNTY—T 9n, R 13w, Sec. 18, J. J. Wright et al's Boys 1, nw c, lcn.

WASHITA COUNTY—T 8n, R 19w, Sec. 29, Snodgrass et al's Bocker 1, nw c, sd 1440 ft. T 8n, R 18w, Sec. 21, Burns & Prince's May Dock 1, sw c, sd 150 ft.

GREER COUNTY—T 7n, R 22w, Sec. 1, Roy Good et al's Cliffel 1, nw c, sd 1615 ft. T 7n, R 21w, Sec. 23, H. A. French et al's Murphy 1, sw nw se, sd 1490 ft.

HARMON COUNTY—T 4n, R 24w, Sec. 17, Harmon-Tex Oil Co.'s Headley 1, ne c, sd 2592 ft.

COMANCHE COUNTY—T 3n, R 9w, Sec. 3, Okla. Nat.'s Doegel 1, ne c sw sw sw, sd 1450 ft.

STEPHENS COUNTY—T 1n, R 8w, Sec. 24, Rose Southard's McKinley 1, ne c, sd 2940 ft. T 1n, R 7w, Sec. 1, Junior Oil Co.'s Thompson 1, ne sw se, sd 3329 ft. T 3s, R 8w, Sec. 3, A. L. Andree's Patrick 1, c s½ se, sd 2759 ft.

HUGHES COUNTY—T 5n, R 11e, Sec. 15, J. J. Wright's Roberts 1, se c sw, sd 1645 ft.

GARVIN COUNTY—T 2n, R 2w, Sec. 24, Malernee Oil Co.'s Phillips L, ne c sw, lcn.

COAL COUNTY—T 2n, R 8e, Sec. 10, Whitney et al's Miller 1, se c ne (owd), sd 760 ft. T 1n, R 8e, Sec. 35, W. E. McGraw O&G's Stiring 1, ne c se, sd 250 ft.

ATOKA COUNTY—T 3s, R 10e, Sec. 18, Brookshire et al's Guinn 1, nw c, sd 500 ft.

CARTER COUNTY—T 4s, R 2e, Sec. 32, Tex-Okla. Drlg. Co.'s Anderson 1, se ne se, sd 2806 ft.

BRYAN COUNTY—T 6s, R 7e, Sec. 14, W. A. Johnson's Ussery 1, se c, sd 325 ft. T 7s, R 10e, Sec. 8, Bryan Oil Co.'s Childs 1, ne se sw, sd 660 ft.

KANSAS

MORTON COUNTY—Hydraulic Oil Co.'s State Land 1, nw se, 22-34-43w, sd 3460 ft.

STEVENS COUNTY—Sidwell et al's Kelly 1, sw ne, 16-34-38w, (owd), td 2651 ft, fsh.

COWLEY COUNTY—Fisher et al's Hunt 1, c sw se se 11-34-3e, ru and sd. Tom Fine's Boyd 1, nw ne, 32-32-4e, 12-in cas 1265 ft, sd 2650 ft. Roth and Farrot's Reidty 1, c sw nw ne, 8-32-4e, sd 1040 ft.

HARPER COUNTY—Beeler et al's Baer 1, c ne 21-31-6w, td 1830 ft, sd.

FORD COUNTY—Carter et al's Community-Everett 18, c ne, 22-29-21w, (6000 ft test), ru.

SEDGWICK COUNTY—Buck et al's McNanaman 1, c ne nw nw 2-20-1e, 1225 ft, co.

FORD COUNTY—Swain et al's Kenthorn 1, c nw 21-25-24w, 5-in cas 4557 ft, dr 4610 ft.

STAFFORD COUNTY—Rosenthal's Stanolind & Amerada Gray 1, c ne 11-24-13w, rig.

RENO COUNTY — Shell & Continental's Blake 1, sw se se 23-23-4w, sp.

HARVEY COUNTY—Empire & Shell's Showalter 1, nw se 23-23-2w, dr 2240 ft.

MARION COUNTY—Maidwell's La Master 1, nw c, 31-22-4e, sd 650 ft.

COFFEY COUNTY—Hegberg et al's Kroft 1, se sw se 30-22-14e, 10-in cas 818 ft, td 1300 ft. Roberts et al's Hay 1, sw se nw 32-22-15e, td 1250 ft, sd.

BARTON COUNTY—McCool et al's Tsern 1, c sw se nw 12-20-11w, sd 1600 ft.

RICE COUNTY—Cress et al's Sharp 1, se ne 13-20-10w, 8-in cas 2570 ft, dr 2910 ft.

RUSH COUNTY — Dewey & Mitchell's Greenwalt 1, c sw 17-19-16w, dr 1185 ft.

RICE COUNTY—Skelton Oil's Ott 1, c se se 16-19-14w, sd 2065 ft. Deitrick & Langston's Purcell 1, nw c 33-19-9w, rig.

McPHERSON COUNTY — Henderson & Holden's Sommerfield 1, c ne sw 23-19-1w, sd 3227 ft.

LYON COUNTY—Griffith et al's King 1, nw c 8-19-10w, 12-in cas 910 ft, sd.

BARTON COUNTY—Syndicate Oil's Boertz 1, c nw se ne 13-18-12w, sd 1820 ft.

RICE COUNTY — Allison & Fitzwilliams' Blake 1, ne nw 9-18-10w, rig. McFadden & Shell's Jennings 1, c sw ne nw 29-18-6w, pb to 1130 ft.

NESS COUNTY — Gypsy's Coleman 1, c sw ne, 25-17-25w, 8-in cas 3860 ft, td 4160 ft, fsh tools.

ELLSWORTH COUNTY—Aylward et al's Stratman 1, c se nw se 1-17-10w, dr 2005 ft. Gilmore Oil Co. et al's Sturn 1, nw sw 21-17-9w, dr 1745 ft.

MORRIS COUNTY—Urschell et al's Bersuch 1, c nw se nw 10-17-7e, ru, sd.

ELLSWORTH COUNTY—Alladin et al's Stoddenberg 1, c sw 22-15-10w, sd 1130 ft.

SALINE COUNTY—Stanolind et al's Martin Community 1, ne se se 3-16-3w, rig.

MORRIS COUNTY — Hankenson et al, Cessnum 1, sw se 24-16-9e, sd 900 ft.

ELLSWORTH COUNTY — Milton et al's Kaster 1, se ne 6-14-9w, td 1740 ft, sd. Hershey et al's Schaltz 1, c ne 9-14-8w, sp.

OSAGE COUNTY—Riggs-Smith's Wood 1, c se nw 31-14-15e, 10-in cas 1050 ft, sd.

RUSSELL COUNTY — Austin Drlg. Co.'s Rockefeller 1, se c 6-13-12w, td 3338 ft, ur 6-in.

SALINE COUNTY—Twin Mounds Oil Co.'s Weis 1, c w½ ne nw 30-13-4w, (owd), 19-in cas 1010 ft, sd 2710 ft.

DICKINSON COUNTY—Sever et al's Livingood 1, ne sw 13-13-2e, sd 3850 ft.

RUSSELL COUNTY—Gilbreath et al's Bratton 1, c ne 33-11-13w, 8-in cas 2485 ft, td 2814 ft, sd.

GRAHAM COUNTY—Schleimer et al's Clark 1, c sw ne ne 11-9-25w, running 8-in cas 3715 ft, 6-in cas 3848 ft, dr 3856 ft.

CLAY COUNTY—Nebraska Oil's Tivier 1, sw c 19-8-9e, sd 2390 ft.

SHERIDAN COUNTY—Flo et al's Shoemaker 1, se sw sw 27-7-26w, dr 460 ft.

ROOKS COUNTY—Empire's Holsman 1, c sw ne se 17-7-20w, td 1525 ft, sd.

WASHINGTON COUNTY—Simcox's Penwell 1, nw se ne 16-3-3e, 6-in cas 1210 ft, sd 1720 ft.

RAWLINS COUNTY—Danciger et al's Unknown 1, sw c 3-2-35w, dr 2533 ft.

NORTHERN CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
VENTURA—		
Prairie Oil & Gas' Sexton 1, 30-3-22.	*	8778
BELRIDGE—		
Richfield's Belridge 1, 22-27-20.....	*	6639

KERN COUNTY

BELRIDGE—Belridge Oil Co.'s No. 27-8, 27-27-20, sd 3730 ft; No. 27-64, 27-27-20, dr shale 1826 ft; No. 35-8, 35-27-20, dr shale 3250 ft; No. 35-33, 35-27-20, dr shale 3728 ft; No. 35-48, 35-27-20, dr shale 4528 ft; No. 35-49, 35-27-20, rigging up rotary. Tom Cannon's Fay 1, 18-20-22, rig. Casa Mira Oil Co.'s Theta 2, 29-28-20, rig. Continental's Result 2, 36-27-20, rigging up rotary. General Pet.'s Berry 1, 30-28-21, dr hard shale 3700 ft. Lincoln Drilling Co.'s Victoria 1, pulling liner, td 690 ft. Ohio's Bloemer 1, 36-27-20, coring shale 5878 ft. Reward Oil Co.'s Associated 4, 34-27-20, dr shale 4037 ft. Standard's McPhail 2, 36-27-20, dr hard brown shale 4855 ft. Texas' Martin 1, 22-27-20, dr shale 4815 ft. Union's Belridge 17, 36-27-20, dr oil sand 5350 ft. K. C. Wallace's No. 1, 32-29-21, dr shale 4178 ft.

BLACKWELL CORNER — F. B. Langstroth's No. 1, 14-26-19, lcn. E. J. Miley et al's No. 1, 17-26-19, new lcn.

BUENA VISTA HILLS — Federal Drilling Co.'s No. 6, 20-31-24, co 5270 ft.

BUTTONWILLOW — Wilshire Oil Co.'s Nordon-Salisbury 1, 7-29-24, dr shale 6800 ft.

CARIZZO PLAINS — Panorama Oil Co.'s Panorama 1, 7-31-21, re-dr 2650 ft.

DELANO—C. C. M. O.'s Villard 1A, 31-25-28, dr shale 2140 ft.

DEVIL'S DEN—Tom Hannon's No. 1, 25-25-18, dr shale 2665 ft. Standard's Alferitz 1, 14-25-18, dr hard brown shale 2190 ft.

MOJAVE—John B. Harding's No. 2, 5-10-10, lcn.

SEMITROPIC—Shell's Williams 1, 17-27-23, making production test, td 9702 ft.

TEMBLOR HILLS—Kent and McDonald's No. 1, 3-32-22, running 12½-in cas, td 1702 ft.

WASCO—Cities Service's Prospect 2, 16-28-24, dr shale 700 ft.

WEED PATCH—Alpine Oil Co.'s DiGiorgio 1, rigging up. Mohawk Giorgio 1, 4-31-29, rig; Wharton 1, 32-30-29, fsh for drill pipe, td 5965 ft. Osborn & Colter's SD-1, 15-30-29, lcn. Shell's Morris 1, 32-30-29, dr shale 4040 ft; Porter 1, 29-30-29, dr shale 5800 ft; Porter-Day 1, 29-30-29, dr shale 7669 ft.

SANTA BARBARA COUNTY

COAL OIL POINT—Bolsa Chica Oil Corp.'s Augur 191-1, 24-4-29, sd 4191 ft.

GATO RIDGE — Barnsdall's Tognazzini 1, 9-8-32, fsh for drill pipe 6032 ft.

GOLETA — General Pet.'s Moore 3, re-dr 4465 ft. Sunset Pacific Oil Co.'s Pomatto 1, 12-4-29, sp.

ORELLA—General Pet.'s Erburo 10, rigged to sp. Prairie Oil & Gas' El Capitan 1, dr red sand 3927 ft.

PURISIMA — Vaqueros Major Oil Co.'s Union Annex 3, dr shale 2535 ft.

SANTA MARIA—Western Gulf's Bradley 1, 5-9-33, dr shale 5800 ft.

VENTURA COUNTY

BARNSDALL—Ross & Associates' No. 10, 12-3-20, new rig.

FILLMORE—Associated's Young 1, 16-4-20, lcn.

HOPPER CANYON — Bardeen Pet. Co.'s No. 1B, 13-4-19, rigging up rotary.

OJAI — Drednaught Oil Co.'s Canet 1A, changing to heavier rotary, td 2120 ft. Knudsen and Schmidt's No. 1, 12-4-23, cmt 8¼-in cas at 965 ft.

OXNARD—Magu Syn.'s Utt 1, rigging up.

RINCON — Chanslor-Canfield Midway Oil Co.'s Hobson A2, 23-3-24, dr brown shale and oil sand 8625 ft. Continental's Grubb 1, 23-3-24, dr shale 300 ft.

SANTA MONICA MOUNTAINS—Olympic Corp.'s Calabasas 1, 18-1-17, plugged to 4600 ft, will perforate 9-in cas around 4200 ft.

SANTA PAULA—Belga-American Oil Co.'s No. 1, 22-4-21, rig. San Pedro-Pt. Fermin Synd.'s Kellerman 2, 13-4-21, dr out cmt 2900 ft.

SESPE — Merchants Pet. Co.'s Cochran 1, 1-4-20, cmt 10¾-in cas 726 ft. Superior's Kirtlan 1, 15-4-21, dr shale 5800 ft.

TIMBER CANYON—Petro Well Producing Co.'s No. 4, 18-4-20, rigging up to deepen from 1100 ft.

MISCELLANEOUS

FRESNO COUNTY — Associated's Mitchell 1, 22-21-15, dr shale 4075 ft.

KINGS COUNTY—L. W. Seymour's No. 1, 10-23-16, testing water shutoff, td 1010 ft. T. H. Purman's Avenal 1, 36-23-17, deepening from 2550 ft. Kettleman Lakeview Oil & Gas Co.'s No. 1, 11-23-19, mudding hole, td 1285 ft. Murphy Oil Co.'s Brennan 1, 20-23-20, sr 3707 ft.

MENDOCINO COUNTY — Twin State Oil Co.'s Soldani 1, 14-12-17, dr shale 6275 ft.

SAN LUIS OBISPO COUNTY—Paso Robles Synd.'s Emerick 1, 34-27-11, sdtr tools 3970 ft. Continental's Hellman 1, 26-25-11, dr shale 4820 ft. J. D. Martin's Pricco 2A, 5-31-13, plugging off water, td 2965 ft.

SANTA CRUZ COUNTY — Wellton Oil & Gas Co.'s Galletly 1, dr out cmt for production test, td 2880 ft.

TULARE COUNTY — Big Four Drilling Co.'s No. 1, 29-23-27, co 3870 ft, td 4331 ft. Turk & Campbell's Nevins 1, 34-22-27, dr 1400 ft. Inland Valley Oil Co.'s Smith-Rea 1, 24-17-24, co 2075 ft.

SOUTHERN CALIFORNIA

ALHAMBRA—Fred H. Hammer's Huntington Land 1, 24-1-13, sd 3393 ft.

BELL—Cudahay Community Oil Ass'n's No. 1, 30-2-12, sd 930 ft.

CORONA—Western Gulf's Abacherli 1, 12-3-18, made production test, td 2365 ft, well swabbed oil and small amount of water, will deepen.

CULVER CITY — Olympic Oil & Realty Co.'s No. 1, 14-2-15, dr shale 4858 ft. Taylor Oil Co.'s Culver 1, sd 6081 ft.

EL MONTE—Rancho Oil Corp.'s Harmon 1, 30-1-11, dr gray sand 4322 ft.

FULLERTON — Standard's Bastanchury 1, 21-3-10, dr hard shale 8066 ft.

HERMOSA BEACH—Calico Royalty Series' No. 3, 6-4-14, dr shale 1929 ft. California Ventura Oil Co.'s Sadler 2, 31-3-14, trying to pump, td 3330 ft. R. C. Thomas' No. 1, 6-4-14, lcn. Westwood Pet. Co.'s No. 1, 6-4-14, dr surface sand 300 ft.

NEWHALL—Consolidated Oil Co.'s Hammond 1, 8-3-16, dr out cmt 2605 ft. Electro-

logical Pet. Corp.'s Overman 1, 6-3-16, rig. York & Smullin's Clampitt 6, 13-3-16, rigging up rotary.

NEWPORT—Nuoil Co.'s No. 1, 29-6-10, dr shale 1115 ft. Standard's Irvine 1, 26-6-10, coring shale 3825 ft.

OCEAN PARK—Hines Pet. Corp.'s No. 1, 8-2-15, dr shale 2828 ft.

OLIVE—Texas' Olive Community 1, 7-4-9, dr shale 2828 ft.

PLAYA DEL REY — Mesmer City Realty Co.'s No. 1, 24-2-15, dr shale 1938 ft. West Port Pet. Corp.'s No. 1, 27-2-15, re-dr 3700 ft.

PUENTE—Rucker & Croul's Grazide 2, 22-2-10, dr gray sand 1806 ft.

REPETTO HILLS—Texas' F. M. 1, 4-2-12, dr shale 2358 ft.

SAN FERNANDO—San Val Oil Co.'s No. 1, 14-1-16, dr out cmt, td 2045 ft, may test below 10¾-in cas at 1660 ft.

SAN JUAN CAPISTRANO—Okay No. 2's Foster 2, 13-8-8, sr 5220 ft.

WILMINGTON—York & Smullin's Watson 1, 29-4-13, rigging rotary. Wilmington Consolidated Oil Co.'s No. 1, rigged up to sp.

MONTANA

BIG HORN—Continental Oil Co., 21-6s-35e, resum 3400 ft.

CARTER — Montasota O&D Co., 7-8s-50e, prep to res, 1060 ft.

CASCADE—Andover Oil Co.'s Floweree 1, 20-21-2w, sd 1405 ft. Lone Star Mont. Oil Co., McLean 1, se 13-21-3e, dr bel 800 ft.

CHOTEAU — Williston-Shelby O&G Co., Flack 1, se 12-28-11e, test water at 2860 ft.

FALLON—Carter & Co., 12-4n-61e, sd 490 ft.

FERGUS—Northern State Oil Co.'s Woodward 1, se 20-14n-24e, ream 6-inch to s.o.w. 2845 ft. Melton Corp., 24-21n-17e, dr 2850 ft. Pownam Oil Co., 24-19-11e, to res 200 ft.

GALLATIN—Gallatin Valley Oil Co., nw 1-1n-4e, prep to res at 300 ft.

GLACIER—Fulton Pete Corp.'s Blackfeet 1, ne 28-36n-12w, still cem, td 1300 ft. B&H Oil Co.'s Haines 1, se 2-34-6w, fsh lost tools, td 2762 ft. Jeffries-Hoerr's Dawson 1, ne 7-31-12w, sd 2890 ft.

GOLDEN VALLEY—Texas-Pacific's 1, sw 21-8s-21e, dr bel 3240 ft. J. F. Dealey et al's 1, ne 28-5n-22e, to resume.

HILL — Jones-Rice-Perkins, se 28-33-12w, compl. as 2M gasser.

JUDITH BASIN—Newton-Waddingham, se 15-16-10e, dr bel 1110ft.

LIBERTY—Northland O&G Co.'s Yurman 1, 32-33-5e, to res 3475 ft. Sunburst, McLaren 1, se 9-37-6e, sd 3115 ft. Utopia Oil Co.'s Eleanor Ass'n 1, sd 11-33-6e, to abn at 3214 ft. Perkins et al's Brown 1, nw 24-35-4e, dr 200 ft. G. G. Howard, Schoonover 1, nw 18-36-6e, rigging up.

POWDER RIVER—Creel et al, 7-8-50e, dr 1200 ft at last report.

ROSEBUD—Prairie O&G Co., 1-X, 26-10-39e, dr up urr, td 2325 ft.

TETON—Andover Oil Co.'s Carlson 1, 5-24-4w, stand. 150 ft.

TOOLE—Liquid Gold Oil Co.'s Roberts 1, ne 25-36-12, gas ignited, rig burned 2150 ft. International Roy. Hold. Co.'s Henry 1, sw 26-35-36, fsh tools 2650 ft. A-1 Pete Co., se 24-36-1e, wait pipe 1555 ft.

YELLOWSTONE—Peter Antonioli, 21-2n-25e, dr bel 500 ft, last report.

COLORADO

ADAMS—N. M. Slatt's 1, se 27-26-64w, dr 2567 ft.

ARAPAHOE—McDebb Drlg. Co.'s Fitzsimons 1, 7-45-55, dr out cem 5750 ft. Merrett et al, U. P. 1, nw 17-5-65, stand 1600 ft, hfw.

BACA—A. R. Jones Oil & Optg. Co., Boice Cattle 1, 22-34-42w, stand 4760 ft.

EL PASO—Utemore Synd., Cannon 1, ne 10-16s-66w, stand 1100 ft.

GRAND—Oil Mineral Lands, Inc., McElroy 1, sw 14-2n-81w, dr 110 ft.

HUERFANO—Parker Club Fee 1, se 4-28s-68w, sdtr 5 3/16-inch cas, td 4116 ft.

JEFFERSON—Ruby Hill O&G Co.'s Braden 1, se 24-4s-69w, show gas, dr 3873 ft.

LAS ANIMAS—Oklahoma Dr. Ass'n, Radcliffe 1, ne 28-28-52, sd 100 ft.

LA PLATA—McGarr Pete Co.'s Pinon Mesa 1, ne 34-33n-12, lcn. Klem Pete Corp.'s Olbert 1, se 9-25n-12w, stand 3125 ft. Murchison Oil Co., Doescher 1, nw 29-33n-12, sd 1225 ft.

LINCOLN—Eastern Colo. Oil Corp.'s State 1, 36-14n-57w, dr at 3370 ft.

MOFFAT—Mtn. Fuel Supply's State 2, tract 37-12-100, making repairs after gas fire at 2180 ft. S. H. Keoughan et al's State 1, sw 16-4n-101w, sd 2950 ft.

MONTEZUMA—Haller et al's Hailer 4, sw 4-36-14w, abn at 580 ft.

MONTROSE—Uncompahgre O&G Co., Colo. Title & Trust 1, 27-50n-10w, dr 30 ft.

MORGAN—Ind. Terr. Illum. Oil Co.'s State 1, ne 16-1n-57w, dr 4210 ft.

PUEBLO—Anchor Oil Co.'s Easley 1, sw 35-22s-67w, sd 520 ft.

PARK—So. Park Oil Co.'s Milligan 1, se 13-9s-76w, dr 1816 ft. So. Park O&G Co.'s Eache 1, ne 6-9s-76w, sd.

ROUTT—Ingersoll et al's Omholt 1, 29-4n-87w, sd 115 ft.

WASHINGTON—Middlemist Oil Co.'s Middlemist 1, se 14-4-56, stand 1710 ft.

NEW MEXICO

CHAVES—Warman Oil Trust, Siebert 1, ne 27-13-24, ur to 2045 ft.

DE BACA—Matador Oil Co.'s Wood 1, se 6-4n-20e, dr at 3010 ft.

HARDING—Milwaukee Synd., Kerlin 1, se 34-21n-30e, dr at 420 ft, gas at 380 ft.

LUNA—Angelus Oil Mining Ass'n 1, se 20-21s-10w, dr 6068 ft.

McKINLEY—J. W. Halsell's Santa Fe 1, 17-18-9w, sd 3255 ft. Wms. et al's A.T.S.F. 1, se 19-18n-8w, stand 2250 ft. United Kern Pete Inc., 1, sw 1-18n-11w, lcn. Dysart et al, Dysart 2, ne 14-14n-10w, dr 1290 ft.

MORA — Santa Fe Diox-Ice Co., Wagon Hound 1, ne 14-19-21, dr 85 ft.

OTERO—Ernest et al's 1, se 20-25s-7e, wtg for equip. at 1328 ft.

RIO ARRIBA—Berrenger et al's Hartman 1, ne 8-29n-7w, sd 825 ft. San Juan Pete Co.'s Gov't 1, se 14-30n-7w, sd 250 ft. Governador Oil Co.'s 1, se 12-29n-7w, dr 800 ft.

SAN JUAN—Dorothy Oil Co.'s Terwilliger 2, 29-30-9w, stand 1750 ft. Kutz Canon O&G Co.'s Day 1, se 20-28n-10w, stand 2410 ft. Childers Dr. & Pr. Co.'s Westwater 2, nw 23-31-16w, dr 2490 ft. Rio Grande Dev. Co.'s 2, 9-29-11, prep to res 1380 ft. Continental Oil Co.'s Rattlesnake 24, 1-29n-19w, fsh 4730 ft for dr pipe. J. B. Witt O&G Co.'s Magnum 1, se 33-29n-11w, lcn. San Juan Leaseholds, Bowman 3, ne 30-30-15, dr 2635 ft. Reserve Oil Co., Reserve 3, se 36-22n-14w, dr 385 ft.

SAN MIGUEL—Pioneer O&G Co.'s Thunderbird 1, nw 14-15n-16e, wait 2340 ft. Starr Oil Co.'s Adams 1, ne 25-17n-16e, dr 3384 ft. Cibola Pete Co.'s Crown 1, se 9-13n-14e, ur, td 755 ft. Hershfield Dev. Co.'s Cabra Springs 1, ne 12-12n-22e, prep to res at 1415 ft. Kull et al, Cherryvale 1, ne 34-17n-21e, prep to case, td 440 ft.

TORRANCE—Williams et al's Staplin 1, ne 16-8n-10e, prep to res 1643 ft. J. B. Witt O&G Co.'s Kutchem 1, 12-17-7e, dr 1475 ft.

VALENCIA—Acme Oil Co.'s N.-M. Ariz. Land Co.'s 1, ur to 4958 ft. Harlan et al's Halran 1-A, 5-6n-2e, dr 6100 ft.

WYOMING

BIG HORN—Westland Oil, Inc., 24-54-95, gas at 510 ft. Wisconsin Holdings, 5-55-97, sd 665 ft. Yellowstone Pete Co.'s 1, 7-57-97, sd 4080 ft.

CARBON—Midwest Refining Co.'s U. P. 1, 27-11-81, sd 1810 ft. Pete Expl. Co. of Calif., 29-23-89, dr 2500 ft.

CONVERSE—Converse O&G Co., 27-33-72, sd 1410 ft. Pioneer Oil Co., 5-31-70, to dr new test.

FREMONT—Texas Prod. Co.'s State 1, 36-44-95, prep to cem 6⅝-inch at 4463 ft, td 4485 ft. P. & R. 1, 33-34-92, sd 4906 ft. Yellowstone Oil Co.'s 1, 15-39-92, dr 600 ft. Ward O&G Co., 28-34-90, gas show 1500 ft. Maghee et al, 2-35-99, dr 800 ft.

JOHNSON—R. C. Tarrant et al, 4-43-82, to dd.

LINCOLN—Mountain Oil Corp.'s 1, 36-25-116, td 1500 ft. Wyo. Prod. Co., 14-42-113, dr bel 1225 ft.

NATRONA—Summit Oil Co., 21-33n-80w, sd 1220 ft, wait on equip. Midwest's 11, nw 32-34n-77, stand cem 5340 ft. Cuyler Oil Co., 23-36n-85w, spd. Golden West Oil Co., 36-36-81, ready to res 1242 ft. Midwest's Midway 1, ne 23-35n-79w, dr 5265 ft.

NIOBRARA—West Virginia Synd., 7-35-62, td 987 ft, cas trouble.

PARK — Resolute Oil Co., 17-57-101, fsh bailer 8345 ft.

SWEETWATER—Vermillion Oil Co.'s 1, se 16-12-99, sd 3500 ft.

UINTA—Park City O&G Co., nw 6-15-113, dr bel 2400 ft.

WASHAKIE—Dakota-Wyoming Oil Co., ne 24-47-90w, small show 200 ft, to be cased off and dd. Ohio Oil Co., lot 14, 19-45-92, cem 20-inch at 102 ft.

NORTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
CLAIBORNE PARISH—		
La. O. R. Corp., Langston 10, 19-21-7w	*	4504
SABINE PARISH, (Zwolle)—		
Lacey Jesup Oil Co., Brown Lbr. Co. 1, 28-8-10	*	3250
J. M. Thompkins, Stoker 1, 10-7-11.	*	2520
Pearce, Tr., Pearce 1, 10-7-11	*	2600
Frank Buttram et al, Hale 1, 1-7-13.	62	2354
Bradley Drilling Co., Newton 1, 25-8-12	*	2575

BIENVILLE PARISH —Jamestown Synd.'s Lawhon 1, sw ne 15-16-8w, show gas sandy shale in Tokio 2860 ft 6-in cas 2863 ft, casing collapsed while bailing, wo td 2866 ft.

BOSSIER PARISH — Andrews & Davlin's Nattin 1, 15-2[illegible]14, dry 2062-67 ft dr chalk 2250 ft. H. I. Morgan et al's Kendricks B-13, ne sw 22-19-11, 10-in 147 ft blew out est 20 mil ft gas fsh ds td 1702 ft. Rambaugh et al's Allison 1, 10-19-13, tested dry sd 1100 ft. R. O. Roy's W. H. Hodges 1, ne ne 19-16-10, 12½ cas 140 ft dr shale 1975 ft.

CADDO PARISH—United Gas Pub. Serv. Corp.'s Emmons 1, ne sw 27-23-16, 12½ cas 363 ft 9-in cas 3635 ft dr 4245 ft. Fortner 1, nwc frac sec 5-22-16, dr 5217 ft. Garry M. Gordon's Hatcher 1, nw ne 11-17-15, lcn (5500 ft test) Pyramid O&G Co.'s Wheeler 1, se sw 9-18-16, 10-in 450 ft dr 2320 ft. Libby et al's Foster 1, 29-15-16, dr shale 3230 ft. Ralph Davidson et al's F. Weiller 1, 33-17-13, 10-in 40 ft, dry 1802-1942 ft, sd 1991 ft.

CATAHOULA PARISH — National Drilling Co.'s Mash McMilian 1, 265-9-6e, 6⅝ cas 2796 ft tested sw sd 3086 ft.

CALDWELL PARISH—Hudson et al's Burton 1, 36-12-2e, dr rock 2650 ft. Carter Bell et al's Taylor 1 42-14-4e, dk.

CLAIBORNE PARISH—Baird Bros. et al's Whittaker 1, 30-20-7w, r to bot td 2415 ft. La. O. R. Corp.'s Langston 10, 19-21-7w, 9⅝ cas 2438 ft dry abn in sandy lime td 4504 ft.

CONCORDIA PARISH—Fred Stovall's Grasmere 1, 23-8n-10e, 8-in 152 ft dry thru ds 1025-1100 ft dr 1105 ft. United Pub. Serv. Corp.'s Saunders 3, 42-8n-10e, 12½ cas 160 ft dry 1415 ft tested est 2 to 3 mil ft gas 1438 ft cemtd 9-in cas 1400 ft td 1438 ft. Joe Marr et al's Maxwell 1, 38-3-8e, sd 3622 ft.

DESOTO PARISH—W. H. Weichert's H. Smith 1, 31-14-15, top gas sand 1653 ft top chalk 1901 ft sd 2350 ft. Neff et al's Ramsey 1, 33-13-16, 12½ cas 80 ft dry show gas thru ds 2816-32 ft coring 2850 ft. S. A. Guy et al's Dowling Bros. 1, 31-14-14, sd 1354 ft.

NATCHITOCHES PARISH—C. M. Talley et al's Talley 1, 29-11-10, 10-in 60 ft set 6-in cas with pckr bailed dry show oil in brown sand and shale 1256-69 ft arr deepen. Gulf Ref. Co.'s Bodcaw Lbr. Co. 1, sw ne 13-13-8w, 12½ cas 930 ft, cor shale and lime 4123 ft. W. M. Coates et al's Collins 1, 28-9-10, base midway chalk 2612 ft, dr lime 4037 ft. J. W. Cooper et al's Cooper 1, 35-11-10, dry in sandy shale 2829-32 ft, dr 3025 ft. Cooper 2-A, 35-11-10 top chalk 1400 ft, claim show oil and gas arr ds test td 1515 ft.

RED RIVER PARISH — Lucky Strike Oil Co.'s Chaffraix 1, 33-12-10, tested est 500 bbls sw show oil 2820-3010 ft sd 3010 ft.

SABINE PARISH—Pearce, Tr.'s Pearce 1, sw sw 10-7-11, 6⅝ cas 2339 ft, did not standr dry abn td 2600 ft in chalk. J. C. Walton's Sabine 1, ne nw 11-7-12, cemtd 6⅝ cas 2119 ft. Lacey Jesup Oil Co.'s Brown Lbr. Co. 1, se ne 28-8-10, 6-in at top marl 2256 ft top chalk 2690 ft, base chalk 2822 ft, dry abn 3250 ft. Lacey Pet. Co.'s Cooper 1, 30-8-11, top chalk 2306 ft 6⅝ cas 2270 ft, hfo wosr td 2620 ft. Cooper 3, sw ne 30-8-11, rig. Trans-America Oil Co.'s Carter 1, 36-8-12, top marl 2311 ft 6-in 2211 ft 700 ft oil in hole wo td 2540 ft.

Boys, be CAREFUL

We're all having a time getting the job done in East Texas. Every man's on his toes, and everybody's in high.

But boys, BE CAREFUL!

In the mad scramble, too many good men have already become the victims of fatal automobile accidents, most of them caused by fast night driving. It just isn't safe to make fifty and fifty-five at night!

Take the case pictured above. A man driving a truck and trailer load of pipe had to stop. He couldn't pull off in the ditch. The man in the car didn't see the truck tail-light . . . well, it was d . . . d terrible; and all unnecessary.

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Oval Shape of Body Prevents Balling Up

The oval shape gives the bit another important advantage over flat bodied bits. When this oval bit is rotating, there is less tendency for balling up, a feature that is immediately obvious to the experienced driller and conclusively proven by test and field experience.

Write for Illustrated Folder

TEXAS IRON WORKS

1401-1423 MAURY STREET

Houston, Texas

Jean Longoria's Belton 1, 31-9-13, 10-in 103 ft, dr 960 ft. Franks et al's Dew 1, 22-8-11, 6-in 2111 ft, top marl 2265 ft, bailed dry 2380 ft, ar deepen. Triangle Pet. Co.'s Sabine 2, 36-8-12 dk pat. D. M. Lide's Ponder 1, 15-7-11, to marl 2393 ft, top chalk 2407 ft 6-in 2385 ft hfo wosr td 2800 ft. Ponder 2, ne nw 15-7-11, 10-in 102 ft 6⅝ cas 2364 ft, show oil 2420 ft arr deepen. Jno. Woodley's Sabine 1, ne ne 12-8-12, 10-in 103 ft 6⅝ cas 2310 ft. H. W Perritt's Bowman-Hicks 3, 2-7-12, cemtd 6⅝ cas 2206 ft. Bowman-Hicks 4, se ne 2-7-12, lcn Boring 1, se nw 11-7-12, dk pat. A. H. Thomas' Edwards Est. 1, ne se 8-8-13, R. L. Gay Tr.'s Long Bell Lbr. Co. A-1, ne nw 10-8-13 dk, pat. Jordan & Co. Inc.'s La. Long Leaf 1, sw se 3-7-11, lcn. J. M. Thompkin's Stoker 1, 10-7-11, 10-in 105 ft 6⅝ 2362 ft, dry abn in chalk td 2520 ft. Magnolia Pet. Co.'s Lucius 1, nw ne 2-5n-12w, 13⅜ cas 204 ft, show oil 2595-99 ft, base hd lime 4060 ft, sandy shale 4068 ft, dr hard shale 4400 ft. Gautier et al's Meshell 1, se nw 30-8-12, 10-in 100 ft drill stem froze td 1800 ft, skidded 15 ft est rig up sec hole. Ohio Oil Co.'s Bowman-Hicks 6, se nw 2-7-12, 10-in 203 ft 6⅝ 2200 ft 1800 ft oil hole wosr td 2509 ft. Bowman-Hicks 7, ne ne 2-7-12, 10-in 100 ft, dr 2050 ft. Durham Oil Co.'s Polly 1, sw ne 18-8-12 10-in 105 ft 8¼ cas 2087 ft, sd 2102 ft. Packard Oil Co.'s Davis 1, sw sw 8-7-10, 10-in 80 ft, coring 2314 ft. Merritt, Tr.'s Byrd 1, se nw 1-7-11, coring 2327 ft. Frank Buttram et al's Hale 1, ne ne 1-7-13, flowing 62 bbls oil day td 2354 ft in chalk 6⅝ cas 2068 ft. Bradley Drilling Co.'s Newton 1, nw se 25-8-12, 10-in 100 ft 6⅝ 2360 ft dry abn in chalk td 2575 ft. W. M. Coates' Sabine 2, 2-7-12, 10-in 100 ft dr 1730 ft. Sabine 3, 1-7-12, dk. Loring Oil Co.'s Bowman-Hicks 16, nw nw 9-7-12 to be 6000-7000 ft tested upper Trinity.

TENSAS PARISH—Seip et al's Fowler 1, 10-10-10e, sd 905 ft. A. R. Willis' Curry 1, 39-11-12, sd 3148 ft.

VERNON PARISH — Smith, Weir et al's Delta L&T Co. 1, (formerly carried Fee 1), nr ne 14-2n-11w, rig.

WEBSTER PARISH—D. M. Coyle's Frazier 1, ne se 27-23-11, dk. Cassidy & Davis' Nickerson 1, ne sw 29-23-10, sd 160 ft. Red Hawk Oil Co.'s Matthews 1, se nw 11-23-9, sd 250 ft.

LOUISIANA GULF GOAST

ACADIA PARISH—Yount-Lee's Houissiere 9, Evangeline, fsh 8666 ft.

ASCENSION PARISH—Gulf's United Land Co. 19, Sorrento, dr 3800 ft sand. Triumph Oil Co.'s Lacey 2, stdg 4220 ft.

AVOYELLES PARISH — M. L. Vincent's Morrow 1, sd 4220 ft.

CALCASIEU PARISH—Wilfred Lahay's Jardell 1, 2 mi e Vinton, sd 3250 ft. Vacuum's State 7, ru. Union Sulphur Co.'s Moss 2, Lockport, fsh 5160 ft. J. O. Davis' Ind. Lbr. Co. 1, Starks, stdg 6560 ft. Crawford Doyle Tr.'s M. Johnson 1, Starks Dome, sd 370 ft. Union Sulphur Co.'s Fee 762, dr 5430 ft. rock.

CAMERON PARISH — Freeport Sulphur Co.'s Gulf Land Co. 7, Black Bayou, lcn. Yount-Lee's 8, Black Bayou, set 8-in cas 1080 ft. Shell'sWatkins 16, Black Bayou, slight oil show 4193 ft; State 2, dr 4350 ft, salt. The Texas Co.'s State Lake 7, Calcasieu Lake, lcn. Vacuum's Cameron Meadows 2, Cameron Meadows, dr 100 ft shale. Magnolia's Sweet Lake Land Co. 2, Sweet Lake, set 15½-in cas 1660 ft. Pure's Yount-Lee 10, Sweet Lake, set 9⅝-in cas 6820 ft.

IBERIA PARISH—Jefferson Lake Oil Co.'s Peigneur 10, Jefferson Island, prep to pump; Lake Peigneur 11, set 18½-in cas 60 ft. The Texas Co.'s Vermilion Bay 6, Vermilion Bay, dr 4250 ft sand.

IBERVILLE PARISH—Gulf's Gay 1, Bayou Choctau, dr 4150 ft shale; Wilbert 8, dr 1000 ft gumbo. Standard of La.'s L. Baist 1, Bayou Blue, dr 2370 ft gumbo; Schwing 1-A, dr 5600 ft gumbo; Schwing 3, sd 2980 ft. Wilbert 7, stdg 50 ft; Case 2, Bayou des Glaise, lcn. Wilbert 9, Bayou des Glaise, dk. Texas Gulf Sulphur Co.'s Wilbert 8, Bayou Choctau, abn 1292 ft; Wilbert 9, lcn.

JEFFERSON DAVIS PARISH—H. T. McClain et al's Atterbury 1, Welsh, coring sand 5460 ft. A. V. Peters' Smith 1, Welsh, lcn.

PLAQUEMINES PARISH — Gulf's Burras Levee 2-B, Rose Dome, sulphur show 2350 ft cap rock. Humble's Cockrell-Moran 2, Lake Grande Ecaille, sd 5000 ft.

ST. JAMES PARISH — Convent Oil Co.'s Jacobs 1, stdr 1834 ft.

ST. LANDRY PARISH—The Texas Co.'s Botney Bay Lbr. Co. 9, Port Barre, set 12½-in cas 1074 ft dr 1900 ft gumbo.

ST. MARTIN PARISH—Harrison & Abercrombie's Barras 1-A, sd 6330 ft. Humble's Woodward 1, Bayou Bouillon, dr 5620 ft sand; State 4, stdg 4470 ft.

ST. TAMMANY PARISH—Washington & St. Tammany Dr. Co.'s Coussack 2, sd 2030 ft.

TANGIAPAHOE PARISH—Joan Dev. Co.'s Lake Superior Pil Co 1, stdg 3010 ft.

TERREBONNE PARISH—La. Gas & Fuel Co.'s Minor Estate 1, Houma, dr 5260 ft shale. The Texas Co.'s Bay St. Elaine 1, Elaine, no report; Bay St. Elaine 6, lcn; Caillou Island 4, ru; Four Isle 5, Four Isle, dk; Lake Barre 6, Lake Barre, dr pil; Lake Barre 8, dr 5440 ft shale; Lake Barre 10, lcn; Lake Barre 11, lcn; Lake Barre 12, lcn; Lake Barre 13, lcn; Lake Barre 14, lcn; Lake Pelto State 4, Lake Pelto Dome, dk; Lake Pelto 5, lcn.

VERMILION PARISH — Pure's SW La Land Co. 1, dr ws 5790 ft.

ARKANSAS

Company, Well and Location	Initial Production Bbls.	Depth
Marine Oil Co., W. B. Thompson B-2, 10-18-13	300	3582

CHICOT COUNTY—H. R. Smith's Lytle 1, 31-18-3, cemtd back to 2865 ft, sd old td 2925 ft.

CLAY COUNTY—S. C. Jeffus, Tr.'s Underwood 1, nw ne 4-20-8e, dr 1020 ft.

CLEBURNE COUNTY—Donnell et al's Fee 1, 33-11-9, sd 3740 ft.

CRAWFORD COUNTY—Citizens Gas Co.'s Hood 1, ne se 18-9n-32w, dr 850 ft.

DALLAS COUNTY—John James, Tr.'s Fordyce Lbr. Co. 1, ne nw 11-9s-15w, 10-in cas 176 ft, missed ds test 2035-55 ft, coring chalk 2170 ft. E. C. Brewer, Tr.'s Hillman 1, se ne 20-10-13, 10-in cas 138 ft, hole cleaned, sd in lime 2644 ft.

GARLAND COUNTY—H. H. Given's Garrett 1, 1-3n-19w, cas pulled, hfw, td 3756 ft.

GRANT COUNTY — Spann & McClung's Sarah Page 1, sw nw 3-3-12, sd 438 ft.

HOT SPRINGS COUNTY—John Watkins, Tr.'s Cunningham 1, 11-5-16, sd 100 ft.

JOHNSON COUNTY—Blackwell O&G Co.'s Wyver 1, 21-8-23, ta 5600 ft.

LA FAYETTE COUNTY—Crawford Drlg. Co.'s Vaughan 1, 25-19-25, rif. McIver et al's Hattle 1, nw ne 1-20-26, 12¼-in cas 115 ft, sd for fuel 2345 ft. Smitherman & McDonald's Bodcaw 1 (formerly carried Reed 1), se nw nw 16-15-22, 12¼-in cas 42 ft, bailed, swabbed sw show oil, may pull liner and recemt bottom, 8¼-in cas 1176 ft, td 1194 ft. Cosby Prod. & Royalty Co.'s Biddle 1, ne ne 1-20-26, lcn.

LAWRENCE COUNTY — Marguerite Dev. Co.'s Broadway 1, 31-17-1, sd 45 ft.

LITTLE RIVER COUNTY—Fay Roberts Oil Co.'s Russell 1, nw nw 25-12-29, lcn.

LOGAN COUNTY — M. W. Greesom's Parks 1, 21-8-24, sd 1309 ft. J. H. Flowers' White 1, 13-5-26, sd 3610 ft.

MADISON COUNTY—J. W. Baxter's Hallem 2, cent. sec. 17-16-26, sd 405 ft. Hallem 3, ne sw 1-17-26, sd 42 ft.

MILLER COUNTY—E. & F. Oil Co.'s E. L. Beck 1, 36-15-26, 6⅝-in cas 2792 ft, 4¼-in cas 2957 ft, tested sw 2961 ft, sd 2968 ft. Lentz et al's Johnson 2, 24-15-26, sd, arr set 700 ft 8-in cas to shut off fresh water flow, td 4700 ft. Johnson 3, ne nw 24-16-26, sd 2850 ft. Bullock Oil Co.'s Hervey 1, 2-15-26, ta with junk in hole, td 2832 ft. East Texas O&G Co.'s Hervey 1, 2-15-26, ta 890 ft. Gusher Bend Oil Co.'s Adams 1, nw nw 24-14-26, 10-in cas 115 ft, coring 2594 ft. O'Mara et al's Person 1, 31-15-25, lcn. Fitzwater et al's Beck 1, sw se 33-15-26, 10-in cas 85 ft. Salzer & McRae's Rose 1, ne nw 9-16-26, 10-in cas 98 ft, sd 475 ft. J. D. McRae's Smith 1, nw se 28-15-26, dk.

OUACHITA COUNTY — Belmont et al's Dean 1, 16-15-17, top red beds 2765 ft, sd junk in hole 2907 ft. Copenhaver et al's Elliott 1, se se 11-15-17, cemtd 6-in cas 2185 ft, td 2190 ft. Wesson & Bonner's Wesson 1, sw nw 22-15-19, 6⅝-in cas 2083 ft, wo power to pump, 300 ft fluid in hole, td 2169 ft. J. D. Reynolds' Grayson 1, 21-15-19, 10-in cas 42 ft, Nacatosh 1502-14 ft, did not test, cored

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WEST TEXAS

County Maps — Combination Maps

Descriptions and prices on application

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WICHITA FALLS, TEXAS

sand 2175-90 ft, cemtd 6-in cas 2151 ft, td 2190 ft.

PIKE COUNTY—Henderson et al's Tilyou 1, 26-8-24, show heavy oil 567 ft, coring 2360 ft. E. R. Henderson's Lee 1, sw se 31-8s-24w, dk.

POPE COUNTY—Ark. La. P. L. Co.'s McFadden & Brooks 2, ne nw 15-9-21, 13⅜-in cas 1900 ft, tested 1 mil ft gas 3285 ft, 8⅝-in cas 3415 ft, 8-in 3451 ft, dr sand 4015 ft. Baird 1, se nw 11-7n-20w, dr shale 1050 ft.

SCOTT COUNTY — Heavener O&G Co.'s Reser 1, 36-4-26, sd 1536 ft. Ark. Valley Gas Co.'s Turner 1, se se 27-5n-30w, lcn. Waldron O&G Co.'s J. G. White 1 (sec. hole), sw nw 17-3n-29w, 10-in cas 225 ft, dr 907 ft.

SEBASTIAN COUNTY—M. W. Greesom's Spears 1, 9-7-29w, sd after testing sw 2515 ft.

UNION COUNTY—Hickman et al's Hogg 1, 35-16-17, top Graves sand 2351 ft, top red beds 2779 ft, coring red beds 3289 ft. Rice et al's Whatley 1, 7-17-15, sd 2186 ft. Marine Oil Co.'s W. B. Thompson B-2, se ne 10-18-13, 10-in cas 317 ft, cored sand 3579-82 ft, cemtd 6⅞-in od cas 3577 ft, flowing 300 bbls pipe line oil by heads, td 3582 ft. Thompson E-1, nw ne 10-18-13, sp 10-in 317 ft, dr 1600 ft. Thompson E-2, ne ne 10-18-13, lcn. W. B. Thompson B-4, se ne 10-18-13, lcn. Southern Prod. Co.'s Wingfield 1, se nw 16-19-15, 10-in cas 103 ft, dr hard shale 2505 ft. Wilson & Chapman's Hadley 1, ne sw 3-18-13, 10-in cas 102 ft, top Nacatosh sand 2300 ft, top Meekin sand 2550 ft, top red beds 2933 ft, sand 3561-63 ft, 6⅝-in cas 3539 ft, swabbed dry, td 3563 ft tested 600 ft oil in hole at 3570 ft, arr core, td 3570 ft. C. H. Murphy et al's Union Sawmill 1, nw sw 18-18-13, 10-in cas 111 ft, top Nacatosh 2198 ft, tested 4 fourbles sw 2190-2202 ft, tested 20 joints sw 2537-52 ft, coring 2620 ft.

WASHINGTON COUNTY—Taylor et al's Runny 1, 1-13-29, sd 1702 ft. Lincoln Lease Holding Synd.'s Townsite 1, 30-15-32, ta 1500 ft. C. H. Willoughby's Jones 1, 34-16-30, sd 2150 ft. O'Hara & Shetterley's Boyd 1, 12-16-32, ta 850 ft. Delbert Graves' Cunningham 1, 14-15-32, sd in gray sand 602 ft.

VAN BUREN COUNTY—J. S. Martin's Scanland 1, 5-9-13, sd 50 ft.

YELL COUNTY—T. Luckett's Balcon 1, 36-7-12, sd while fsh cas td 5710 ft.

MISSISSIPPI

Company, Well and Location	Initial Production Bbls.	Depth

COVINGTON COUNTY, (Collins Dist.)—United Prod. Corp., McIntosh 1, 5-8n-16w . . . . . * 3383

CLARKE COUNTY, (Quitman Dist.)—Gulf Ref. Co.'s Bor 1, nw se 11-2n-15e, elev 221 ft, 15½ cas 105 ft, 10-in 922 ft, dr sand and shale 2100 ft.

CLAY COUNTY—Ohio Oil Co.'s Cantrell 1, ne ne elev. 270 ft, 13⅜ cas 1389 ft, bit recovered cemtd 9⅝ cas 2929 ft in sandy shale.

COVINGTON COUNTY, (Collins Dist.)—Miss. Gulf O&G Co.'s Pope 1, nw ne 35-8n-16w, 12½ cas 126 ft top Wilcox 2100 ft ta in sandy shale 3000 ft. United Prod. Corp.'s McIntosh 1, sw ne 5-8n-16w, elev 321.5 ft, 12½ cas 805 ft, dry abn in Wilcox td 3383 ft.

CHICKASAW COUNTY—Hightower & Golson's Fleming 1, 20-13s-3e, sd 1562 ft.

GRENADA COUNTY—Carter Oil Co. et al's Dubard 1, nw nw 18-22-4e, top Selma chalk 1787 ft, top Eutaw 2612 ft, tested artesian water 2974 ft sd in red shale 4012 ft (4000 ft contract depth).

HINDS COUNTY, (Jackson Dist.) — Gulf Ref. Co.'s McLaurin 1, sw ne 30-6-2e, top Midway shale 2392 ft, 9-in cas 2466 ft, top Midway chalk 2485 ft, sdtr at 2485 ft base chalk 2875 ft dr red and gray sand 2920 ft. School Board 1, ne sw 16-6-1e, elev 331 ft, 13-in cas 108 ft, top Midway shale 2675 ft, ta 2707 ft.

JASPER COUNTY, (Bay Springs Dist.)—Bay Springs Pet. Inc., J. H. Keyes 1, nw ne 21-2n-10e, 15½ cas 104 ft dr sand 500 ft.

KEMPER COUNTY, (De Kalb Dist.)—W. W. Jones' Rosenbaum 1, lcn not given, dk.

LA FAYETTE COUNTY — F. E. West et al's May 1, 22-10s-4w, rig.

MADISON COUNTY, (Jackson Dist.) — Central O&G Co.'s Cameron 1, 11-9n-1e, 10-in 201 ft, 6⅝ cas 1532 ft, top Midway (?) 2506 ft, missed ds test trying for another td est 3320 ft.

MONROE COUNTY, (Amory Dist.)—Amory Dev. Co.'s Bourland 1, sw ne 2-15-19, sd in brown sand 3007 ft. P. J. McAlpine's Cowart 1, ne sw 2-12-19, 10-in 694 ft 8¼ cas 1270 ft, sd with fsh job 1830 ft. Associated Royalties' School Board 1, sw se 16-15-17, sd 60 ft. Amory Pet. Corp.'s Harris 1, nw nw 18-13s-17w, elev 455 ft, 10-in top Paleozoic rock 478 ft, top gas sand 2324 ft, arr set cas.

RANKIN COUNTY, (Jackson Dist.)—Love et al's Muse 1, se se 32-7-4e, 12½ cas 600 ft sd in sandy brown shale 2208 ft. Love Pet. Co.'s Moore 1, se nw 28-6-2e, sd 900 ft. Millstein O&G Co.'s Gammill Hartfield 1, sw ne 6-5-2e, hf fluid wo 2500 ft. Atkisson et al's Valentour 1, nw nw 18-5-2e, dk, (erroneously carried previously in Hinds County).

SMITH COUNTY, (Raleigh Dist.)—Pocahontas Nat. Gas Co.'s Adams Banks Lbr. Co. 1, ne sw sw 10-3n-7e, elev 425 ft cmt 10-in cas 441 ft in blue gumbo, dr brown gumbo 1375 ft.

WARREN COUNTY, (Vicksburg Dist.)—Dixie Pet. Co.'s Clark 1, nw nw 6-16n-5e, elev. 278 ft, 2½ cas 77 ft, 8¼ cas 2186 ft, dry in Sparta 2248 ft dr sandy shale 2264 ft. Vicksburg O&G Dornbusch 1, sw ne 8-18n-5e, sd 1600 ft.

WEBSTER COUNTY—Cumberland Oil Co.'s Henley 1, 15-21-11, ta 1865 ft.

WINSTON COUNTY, (Louisville Dist.)—Miss. Drilling Co.'s Scarbrough 1, nw nw 15-13n-14e, dr red gumbo 2517 ft.

YALABOUSHA COUNTY, (Water Valley Dist.)—J. D. Collett et al's Blackmer 2, sw nw 14-11s-4w, 12½ cas 103 ft 8⅝ cas 2426 ft dr shale strks lime 2543 ft.

ALABAMA

MADISON COUNTY—Tennessee Valley O&G Co.'s Fee 4, 1-4s-2e, show gas 300 ft, dr limestone 700 ft.

SUMTER COUNTY, (Livingston Dist.)—Forked Lightning O&G Co.'s Nixon 1, sw ne 30-20n-2w, dk.

WASHINGTON COUNTY—Hobson et al's Wilson 1, 27-7-1w, sd in limey shale 881 ft. Hobson Bros. 1, 9-8-2w, sd 1450 ft. Oscar Brown's U. S. Land & Cotton 2, 25-3-2w, sd 700 ft.

TENNESSEE

DECATUR COUNTY—Chester County O&G Co.'s Montgomery 1, sd 2075 ft.

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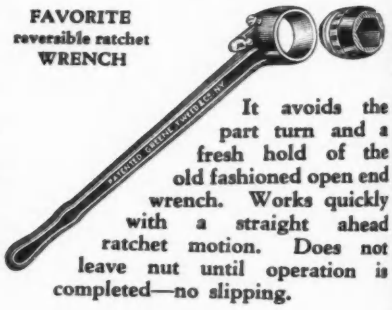

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(Continued from page 80)

line. Magnolia Pet. Co., Dallas, D. Crim, 50, 5, R. E. Winn sur, 650 ft from e and 150 ft from s line; B. Laird, 82, 2, I. Ruddle sur, 155 ft from w and 150 ft from s line. Shaw Oil Co., Wichita Falls, Blk. 3, 3, 1, M. J. Pru sur, 186 ft from e and 171 ft from s line. Houston Oil Co., Houston, J. M. Crim, 50, A1, R. E. Winn sur, 200 ft from n and 160 ft from w line. Shasta Oil Co., Longview, Ras Pool, 10, 1, M. J. Pru sur, 321 ft from e and 300 ft from s line; 2, 204 ft from n and 266 ft from e line. Thrash, 3, 1, M. J. Pru sur, center. Pilot Oil Co., Dallas, A. P. Finney, 40, 2, J. Ximinez sur, 150 ft from n and 180 ft from e line; 3, 150 ft from w and 200 ft from s line. Markham & Dunning, Fort Worth, J. N. Peterson, 25, 2, R. E. Winn sur, 250 ft from n and w lines. G. S. Anderson, Fort Worth, W. H. Frederick, 10, 2, J. Ximinez sur, 150 ft from s and w lines. Navarro Oil Co., Houston, R. N. Brightwell, 107, 1, R. E. Winn sur, 330 ft from n and w lines. Crosbar Oil Co., Henderson, B. B. Gray, 183, 1, McLain sur, 450 ft nw of center of se line. E. C. Laseter, Henderson, J. P. Maxwell, 16, 1, I. G. Parker sur, 150 ft from n and w lines. Burnham, Cameron & Anderson, Fort Worth, W. B. Giles, 15, 1, M. J. Pru sur, 165 ft from e and 300 ft from s line. Turman Oil Co., Tulsa, C. Young, 20, 2, M. J. Pru sur, 150 ft from se and ne lines. A. J. Deason, 50, 3, M. J. Pru sur, 386 ft s of No. 2; 4, 391 ft e of No. 2. Petroleum Marketing Corp., Houston, J. E. Arnold, 9, 1, M. J. Pru sur, 150 ft from n and w lines. Joe Estes, Fort Worth, Ras Pool, 1, 1, M. J. Pru sur, 30 ft from n and 150 ft from w line. Stanlind O&G Co., Tulsa, B. Laird, 40, 2, I. Ruddle sur, 250 ft from n and w lines; 1, 150 ft from n and e lines. Cranfill & Reynolds Oil Co., Houston, C. Young, B, 10, 1B, M. J. Pru sur, 150 ft from n and e lines. W. G. Ray Drilling Co., Arp, N. L. Marivel, 1, 1, M. J. Pru sur, north central part of lease.

ROBERTSON COUNTY—Streeter & Dockery, Hearne, F. G. Marsh, 1, S 17, M. Manry sur, 565 ft from se and 1500 ft from sw line.

SAN JACINTO COUNTY—Arkansas Fuel Oil Co., Shreveport, E. McMurrey, 3520, 1, A. P. Garner sur, 1220 ft from ne and 1950 ft from nw line.

SHACKLEFORD COUNTY — J. L. Hart, Albany, Hetich, 1, 1, Blk. 40, Albany sur, 60 ft from n and 110 ft from w li Blk. 40.

STEPHENS COUNTY — Hanlon Gasoline Co. & Lymans, Breckenridge, J. W. Parks, 20, 1, S 11, Blind Asy. sur, 370 ft from w and 170 ft from s line.

THROCKMORTON COUNTY—Tom Jones, Bryson, J. C. Timms, 26, 2, 688 TE&L sur.

TRAVIS COUNTY—E. R. Marts, Dallas, M. A. Pierce, 22, 1, J. A. Navarro sur, west corner.

VAN ZANDT COUNTY — Pure Oil Co., Fort Worth, F. Blackstock, 40, 1, Jno. Walling sur, 200 ft from w and 88 ft from s line; M. F. Shirley, 40, 4 Jno. Walling sur, 200 ft from e and 92 ft from s line.

WICHITA COUNTY—T. F. Hunter, Wichita Falls, Amer. Refg., 4, J. M. Sharp sur, 1310 ft from w and 1100 ft from s line.

YOUNG COUNTY — Oil News Pub. Co., Oklahoma City, J. W. Cox, 20, 1, B 18, YCSL sur, 150 ft from n and 450 ft from w line. E. C. Reed, Graham, E. P. Tatum, 40, 1, 1908 TE&L sur, 465 ft from n and 1200 ft from e li sec. Putnam Oil Co. & Panhandle Ref. Co., Cisco, T. J. Routon, 160, 2, 265 TE&L sur, 1789 ft from e and 450 ft from s line. G. W. Cooper, Wichita Falls, E. R. Carter, 60, 1, 1301 TE&L sur, 150 ft from w and 750 ft from s line. S. D. Glover et al, Vernon, L. R. Drum, 80, 1, S. Tynes sur, 750 ft from n and 155 ft from e line. Texas Co., Wichita Falls, N. Finch, A, 7, 40 TE&L sur, 300 ft e of No. 4. C. H. Robertson, Fort Worth, C. M. Boyd, 60, 1, S 1, BBB&C sur, 300 ft from s and w lines. Geo. Mollenkopf, Olney, S. L. Ellis, 80, 8, 2244 TE&L sur, 390 ft from n and 150 ft from w li sec. S. M. Stauffer, Oklahoma City, R. J. Johnson, 160, 1, 732 TE&L sur, 990 ft from n and e lines of sec.

ZAPATA COUNTY—S R & C Oil Corp., San Antonio, G. T. Montgomery, 40, D5, Sec. 64 sur, 660 ft from ne and 150 ft from se line Blk. 8.

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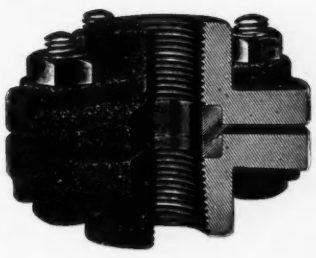

Texas Quarterly Production Report
Fourth Quarter, 1930

Leading Producing Companies of Texas, Fourth Quarter, 1930

Company—	Fourth Quarter 1930	Third Quarter 1930	Second Quarter 1930	First Quarter 1930	Fourth Quater 1929	Third Quarter 1929
Gulf Production Company	6,767,930	7,377,163	7,345,267	6,852,880	7,384,799	8,082,210
Humble Oil & Refining Company	6,437,292	7,519,384	7,622,276	7,359,231	7,647,340	7,775,323
Mid-Kansas Oil & Gas Company	4,341,411	3,218,001	4,851,448	2,831,354	.....	.....
The Texas Company	3,771,601	4,433,591	4,361,235	4,304,651	4,883,816	4,906,652
Shell Petroleum Corporation	3,661,708	4,019,486	4,166,995	2,137,007	2,501,841	2,998,937
Pure Oil Company	2,655,560	2,260,006	2,000,960	1,191,645	.....	.....
Magnolia Petroleum Company	2,508,679	2,843,473	3,137,380	2,851,905	2,340,306	2,490,996
Continental Oil Company	1,943,980	2,180,484	1,922,285	.....	.....	.....
Sun Oil Company	1,782,715	1,797,545	.....	.....	.....	.....
Southern Crude Oil Purchasing Co.	1,776,679	2,166,306	2,450,790	2,842,112	3,178,536	4,124,464

Total of ten leading producing companies in Texas for fourth quarter, 1930..... 35,647,565 Barrels
Evaluation of same $29,206,737
Total production of all Texas producing companies for same period ..... 70,681,490 Barrels
Evaluation of same $60,641,726

GROSS RECEIPTS REPORTED FROM CRUDE OIL PRODUCTION FOR THE QUARTER ENDING SEPTEMBER 30, 1930

Name—Address	Barrels	Value
Argus Oil Company, Inc. (9-30-30), Brownwood	227	209
Allday Oil Corporation, Wichita Falls	319	254
Ama-Gray Oil Company, Amarillo	2,269	2,144
Alamo Oil Company, Brownwood	441	418
Arnold, J. L., et al (9-30-30) Eastland	517	579
Amicable Life Insurance Company, Waco	475	475
Adamson, Peter, Jr., Tulsa	458	372
Ada Belle Oil Company, Batson	19,554	19,777
Allbritain, F. J., Markley	801	976
Acorn Oil Company, Beaumont	6,923	7,027
Arkansas Fuel Oil Company, Shreveport, La.	103,395	114,129
Arab Gasoline Corporation, Eastland	916	987
Allied Oil & Gas Company, Laredo	123,829	97,011
A. & P. Production Company, Houston	48,576	42,629
Alamosa Oil Company, Amarillo	4,453	2,923
Anchor Oil Producing Company (9-30-30), Dallas	763	1,000
Amarillo Oil Company, Amarillo	1,424	1,054
Atlas Production Company, Burkburnett	1,338	1,340
Andrews, W. R., et al, Putnam	741	792
Anderson Williamson Company, Prop., Fort Worth	107,483	68,533
Akin & Rayzor, Wichita Falls	11,813	11,949
Ailes, J. W., Wichita Falls	560	403
Adams & Lyles, Lockhart	5,662	5,322
Adams & Lyles, Lockhart	1,583	1,520
Alaska Petroleum Company, Amarillo	905	788
Abraham, Earl, Bridgetown	1,356	1,012
Arrow Head Oil Company, Dallas	1,135	1,256
Anderson-Drewery Corporation, Cisco	2,537	2,829
Alworth-Stevens-Hild Company, New York	724	557
Ames, E. W., et al, San Antonio	116	122
Atkinson & Sandefer Oil Corporation, Breckenridge	8,161	9,425
Abercrombie, J. S., Company, Houston	202,206	192,918
Art & Taxman, Wichita Falls	847	898
Argus Oil Company, Brownwood	192	153
Artex Oil Company, Wichita Falls	993	856
Anderson-Prichard Oil Corporation, Oklahoma City	128	131
All-American Oil & Gas Company, Oklahoma City	1,370	1,394
Amerada Petroleum Corporation, Tulsa	270,018	209,346
Aarco Oil & Gas Company, Baltimore, Maryland	8,043	8,010
Adams & Prince, Amarillo	15,791	11,012
Adams & McGahey, Amarillo	12,733	11,557
Ascot Company, Wichita Falls	1,303	1,206
Adams, Dr. Walter B., Wichita Falls	309	305
Arcadia Refining Company, Coleman	15,107	16,542
Arco Oil Company, Wichita Falls	17,793	14,757
Arcadia Refining Company, Coleman	1,301	1,424
Abbott, R. W., Beaumont	1,874	1,764
Anderson, C. N., Tr., Des Moines, Iowa	848	1,003
American Maracaibo Company, New York	73,845	51,838
American Refining Properties, Wichita Falls	39,812	31,881
Andrews Petroleum Corporation, New York	3,836	2,838
American Refining Properties (WMP), Wichita Falls	6,028	5,072
American Refining Properties (RMW), Wichita Falls	1,912	1,492
American Refining Properties (MJB), Wichita Falls	1,895	2,227
American Refining Properties (NBC), Wichita Falls	1,056	867
Atlantic Oil Producing Company, Dallas	658,960	523,142
Arnold, J. L., et al, Eastland	370	299
Antelope Creek Oil & Gas Company, Amarillo	2,843	2,099
Bohner, C. F., Kansas City, Kansas	140	177
Butler, J. A., Albany	70	64
Beams, Drew, Okmulgee, Oklahoma	2,761	2,983
Boller, C. W., & Rogers (6-30-30), Wichita Falls	110,616	197,571
Boller, C. W., & Rogers (6-30-30), Wichita Falls	88,564	154,094
British American Oil & Gas Co. (3-31-30), Tulsa	523	613
British American Oil & Gas Co. (6-30-30), Tulsa	796	1,029
Brittan & Gordon, Strawn	655	674
Britton, Ed S., Tr., Strawn	722	785
Borealis Oil Company, Oklahoma City	3,599	3,435
Burton McKee Oil Corporation, Strawn	376	378
Blue Bonnet Petroleum Corporation, Somerset	647	530
Brown, Mrs. Carrie L., et al, Orange	10,122	10,516
Brown, Dr. E. W., Estate, Orange	738	738
Brown Farm Oil Company, Wichita Falls	1,040	1,185
Brownlee-Pope Oil Company, Austin	1,599	1,806
Biggs Oil & Gas Company, McKinney	775	873
Bartlett Production Company, Rockdale	585	598
Byrd, W. E., Hull	594	594
Bashara, M. J., & Sons, Wichita Falls	1,265	1,047
Big Indian Oil & Development Co., Gainesville	873	934
Bowman Oil Company, Rockdale	399	412
Bohner, Crenshaw & Whitehill, Burkburnett	5,709	5,940
Butler & Perkins, Olney	213	202
Bohner, C. J., Oil Corporation, Burkburnett	13,090	14,068
Bohner, C. J., et al, Burkburnett	3,041	3,096
Burns, L. T., Wichita Falls	3,917	2,546
Burns, L. T., Wichita Falls	53,054	56,708
Bartlett Production Company, Rockdale	585	598
Beggs, Geo.—Strip, Fort Worth	1,607	2,224
Boller, C. W., Wichita Falls	13,864	13,796
Bynum, W. W., Estate, Rockdale	868	904
Bryson Oil & Gas Company, San Angelo	3,217	4,047
Bailey & Gilliland—Mrs. Fannie Bailey, Wichita Falls	1,239	1,312
British American Oil Producing Company, Tulsa	5,528	6,194
Boardman & Ulrich, Corsicana	1,555	1,321
Baker, Mollie B. & Fred R., Breckenridge	563	619
Baker, J. F. & H. E., Breckenridge	2,151	2,215
Baker, J. A. & Mollie B., Breckenridge	5,544	6,056
Bruce, A. D., Brownwood	286	259
Braden, The Company, an express trust, Tulsa	2,968	3,224
Baldwin, F. C., et al, Fort Worth	1,214	1,301
Bailey, Carl B., Wichita Falls	7,035	7,596
Brownwood Pro. & Refining Company, Brownwood	1,111	1,149
Barnsdall Oil Company, Tulsa	72,273	66,915
Brazelton Brothers & Williams, Olney	1,420	1,512
Bona, Joseph E., Denver, Colo.	....	3,650
Bolin, D. H., Tr., Graham	13,214	11,092
Bourbon Royalty Company, Dallas	1,269	1,383
Bourbon Royalty Company, Dallas	1,512	1,429

Name—Address	Barrels	Value
Bluebonnet Oil Company, Wichita Falls	563	608
Briggs, R. F., C. O. Smith & T. C. Steiner, Corsicana	44	54
Bowers Oil Company, Vernon	970	1,010
Beard & Hammond Oil Company, Tulsa	2,223	2,067
Badger Oil Company, Amarillo	12,605	12,738
Bexata Oil Company, San Antonio	1,068	919
Breeding & Hutson, Rising Star	399	466
Buttram, Frank, Oklahoma City	453	499
Buttram Petroleum Corporation, Oklahoma City	21,743	26,270
Bayless, A. A., Fort Worth	694	826
Benedum-Trees Oil Company, Pittsburgh, Pa.	6,575	7,620
Bridwell & Mayfield, Wichita Falls	3,642	4,327
Bridwell & Heydrick, Tr., Wichita Falls	1,612	1,415
Bridwell Oil Company, Wichita Falls	115,953	103,952
Biel, Wm. A., Von Ormy	13	....
Barbara Oil Company, Chicago, Illinois	1,994	2,367
Bynum & Palmer, Rockdale	78	75
Bass & Dillard, Wichita Falls	1,986	2,137
Barnsley, Foster, Laredo	3,988	3,063
British American Oil & Gas Company, Tulsa	71,853	68,089
Bearman, J. A., Cisco	6,115	5,441
Brown, H. L., Fort Worth	16,325	14,185
Baker & Pardue, Breckenridge	9,812	11,012
Big State Oil Corporation, Houston	1,168	1,269
Barkley & Crotty, Ranger	3,815	4,131
Barkley & Conway, Ranger	4,424	5,404
Barkley, Gholson, et al, Ranger	231	211
Brown & Guinn, Wichita Falls	386	443
Black, W. A., Midland	887	788
Birk, C. E. & C. L. Kelley, Iowa Park	93	94
Brady Bros., Minerva	701	759
Burburnett Production Oil Trust, Baltimore, Md.	766	831
Brown & Lickey, Wichita Falls	714	905
Bell Oil & Gas Company, Tulsa	3,722	2,475
Bashara, J. F. & Sam F. (October & November), Houston	26,867	31,896
Burke-Greis Oil Company, Tulsa	1,073	1,325
Bonner Company, Wichita Falls	17,743	17,706
Buchanan, A. A., San Antonio	53,655	59,091
Brooks & Hanlon, Inc., Tulsa	557	573
Barnes, J. B., Electra	9,664	8,990
Brannon & Murray, Cisco	1,384	1,633
Bradstreet, L. G., Company, Fort Worth	24,859	26,971
Bullington-Clark, et al, Wichita Falls	2,514	1,946
Big Lake Oil Company, Pittsburgh, Pennsylvania	1,359,653	1,442,301
Black Cat Oil Company, Electra	658	715
Brazos River Gas Company, Wichita Falls	142	184
Bazzoon, G. A., Vernon	373	350
Big Gray Oil & Gas Company, Amarillo	23,511	21,731
Baker, J. A. (9-30-30), Breckenridge	1,176	1,548
Baker, J. A., Breckenridge	729	698
Bartlett, Wm., & Company, Electra	472	530
Bratcher, O. (ending Aug. 31, 1930), Loving	8,782	12,737
California Company, The, Dallas	1,530,955	1,088,961
Cushing Refining & Gasoline Company, Cushing, Oklahoma	11,053	7,517
Collier, J. W., & Mabel (6-30-30), Markley, Texas, or Tipton, Oklahoma	83	92
Claggett & Evans (9-30-30), Mirando City	1,344	1,766
Claggett & Evans, Mirando City	725	943
Callihan, Geo., Albany	699	427
Conway Brothers & J. F. Champion, Ranger	400	385
Conway Bros., Ranger	3,657	4,104
Callihan, Geo., & Carter Development Company, Inc., Albany	1,647	1,738
Clarkson, William, Houston	4,846	5,160
Camp Oil & Gas Company, Wichita Falls	567	605
Caruthers Company, San Antonio	1,253	1,012
Coffield & Hale Oil Company, Rockdale	2,678	2,809
Canyon Oil & Gas Company, Cross Plains	734	797
Chalk, Otis, Big Spring	3,106	1,848
Cuno, Mrs. Bertha, Moran	1,734	1,809
Chenault, W. L., Amarillo	494	404
Consolidated Oil Company of Texas, Wichita Falls	113,966	100,025
Crown Central Petroleum Corporation, Houston	40,455	31,580
Crown Oil & Refining Company, Houston	16,878	15,358
Currie Oil Corporation, Washington, D. C.	163	174
Capitol Oil Company, Orange	558	558
Carey, E. S., et al, Wichita Falls	259	242
Cardinal Oil Company, San Angelo	81,093	40,546
Cosden Oil Company, Fort Worth	436,504	417,266
Cosden Oil Company, Inc., Fort Worth	3,307	2,150
Cosden Oil Company, Inc., Fort Worth	54,567	36,585
Cullen, H. R., et al, Houston	6,184	5,092
Cullen & West Production Company, Houston	17,565	20,978
Clayton-Key Oil & Gas Company, Amarillo	4,686	4,628
Craig & Lowrie, Pittsburgh, Pennsylvania	1,178	978
Cox, Edwin B., Ardmore, Oklahoma	1,312	1,305
Cole Petroleum Company, Laredo	14,430	11,120
Crabb & McNeel, San Angelo	2,910	2,667
Central Oil Company, Cameron	3,124	3,183
Conner, Son & Cloughley, Gotebo, Oklahoma	8,323	9,512
Coble-Whittenburg, Amarillo	333	194
Clark, R. R., et al, Wichita Falls	32,900	37,485
Clark, R. R., Wichita Falls	10,541	10,062
Coppock & Coleman, Iowa Park	12,763	14,447
Comet Petroleum Company, Fort Worth	2,134	1,472
Clear Lake Oil Company, Rockdale	524	556
Continental Oil Company, Ponca City, Oklahoma	1,943,980	1,605,858
Corvette Oil Corporation, Fort Worth	7,578	3,890
Carey, C. W., Wichita Falls	3,562	3,901
Cashdollar & Snyder, Brownwood	86	73
Cornhusker Oil Company, Lincoln, Nebraska	1,464	1,139
C. R. & M. Drilling Company, San Antonio	56,082	62,546
Coline Oil Corporation, Oklahoma City	2,844	3,319
Crosbie, J. E., Inc., Tulsa	1,993	1,323

Name—Address	Barrels	Value
Church & Weekley, Fort Worth	52,627	37,162
Cal Tex Oil Company, Spokane, Washington	247	187
Cable Oil Company, Wichita Falls	4,398	4,288
Carlin, W. W., Ranger	440	484
Cooper & Mishler, Wichita Falls	2,480	2,659
Cooper, G. W., Wichita Falls	3,176	3,065
Corbett, J. Q., & R. V. Tidwell, Graham	560	594
Cole, W. C., Wichita Falls	1,257	1,347
Collins, J. L., & Company, Corsicana	30,935	21,031
Clem Oil Company, Houston	428	321
Cosa Oil Company, San Antonio	305	357
Campbell, Alma, Fort Worth	426	441
Cockrell-McIlroy Oil Company, Amarillo	133,870	113,249
Carter, Roy I., Wichita Falls	18,518	12,782
Chapman, E. L., Fort Worth	375,811	244,592
Cranfill-Reynolds Company, Houston	543,256	516,094
Collins & Teddlie, Houston	4,423	3,997
Cranfill Bros. Oil Company, Wichita Falls	4,683	5,092
Cezeaux, P. C., Humble	5,963	6,105
Canary, S. C., et al, Tulsa	411	403
Clark, C. W., Wichita Falls	5,026	4,003
Campbell, Walter K., Company, Wichita Falls	533	614
Christie Bros., Wichita Falls	10,055	11,253
Chestnut & Smith Corporation, Tulsa	7,061	8,865
Cullum, F. P., Wichita Falls	15,742	11,799
Cosden Oil Company, Fort Worth	109,598	103,872
Cisco Oil Company, Tulsa	18,758	18,423
Culbertson Company, Wichita Falls	7,080	7,791
Cosden Oil Company—Geo. N. Moore & Henry Zweifel, Receivers, Fort Worth	120,911	93,023
Cromwell, Carl G., San Angelo	2,542	1,964
Cromwell, Carl G., San Angelo	7,605	5,072
Cunningham, J. C., Graham	2,634	2,612
Cunningham & Lynch, Graham	3,234	3,919
Cosden, J. S., Inc., Fort Worth	5,728	5,534
Champlin Refining Company, Enid, Oklahoma	122,181	106,348
Champlin Refining Company, Enid, Oklahoma	133,596	125,503
Corzelius Bros. & Taggart, Eastland	1,933	2,167
Corzelius Bros. & Taggart (June, July, August & September, 1930), Eastland	7,441	10,977
Campbell, R. S., Humble	846	810
Clark Buffalo Oil Corporation, Buffalo, N. Y.	729	739
Clay, J. D., Houston	2,291	2,055
Charter Oil Company, Brownwood	5,161	5,817
Cady, C. C., Moran	243	183
Cohen, Aaron, Baltimore, Maryland	5,193	6,078
Davis, Caroline A., Somerset	270	289
Duke, W. R., Wichita Falls	1,241	1,054
Driscoll, R., Estate (3-1929 to 9-1930), Corpus Christi	145,544	126,461
Dunlop & Dawson, Ponca City, Oklahoma	3,057	3,226
Driscoll, R., Estate, Corpus Christi	21,826	17,075
Dean Oil Company, Burkburnett	250	226
Dash Production Company, San Antonio	19,207	23,432
Dunigan Brothers, Breckenridge	907	804
Davis Oil Corporation, Vernon	22,075	22,786
Davis Oil Corporation, Vernon	613	585
Davis Oil Corporation, Vernon	7,323	8,128
Duho Oil Company, Houston	3,103	3,256
Developers Oil & Gas Company, Wichita Falls	549	626
Deutser, B., Tr., Beaumont	1,055	1,049
Dunaway Brothers, Pampa	8,091	8,530
Dunaway, J. E., et al, Wichita Falls	2,166	1,780
Deer Oil Corporation, Luling	1,285	1,499
Dale, Jack B., Wichita Falls	3,739	3,821
Dunigan Brothers, Pampa	356	307
Dale & Crawford, Electra	683	760
Deep Rock Oil Company, Fort Worth	182	156
Duval Oil Corporation, San Antonio	6,209	4,657
Derby Oil Company, Wichita, Kansas	1,542	1,130
Derby Oil Company, Wichita, Kansas	6,634	6,407
Derby & Haines, Wichita, Kansas	3,551	2,847
Derby, Haines & Williams, Wichita, Kansas	459	296
Danciger Oil & Refining Company of Texas, Fort Worth	466,852	401,255
Dixie Oil Company, Inc., Tulsa	92,335	58,112
Douglas Bros. Oil Company, Electra	1,426	1,615
Douglas Bros. & Johns, Electra	338	359
Douglas Producton Company, Electra	1,180	1,216
Dale-Knotts Oil Company, Wichita Falls	252	291
Daniel Drilling Company, Wichita Falls	3,204	3,752
Deako Oil Company, San Antonio	8,582	7,295
Deako Oil Company, San Antonio	6,320	5,026
Dye & Gillette, Tulsa	13,647	13,553
Deep Rock Oil Company, Fort Worth	8,666	5,150
Duffield & Howard Oil Company, Tulsa	619	559
Deering, John A., Houston	36,866	41,064
Dixon Creek Oil Company, Amarillo	78,046	65,651
Dominion Oil Company, Tulsa	487	509
Dennis, J. S., Moran	1,270	1,272
Delmar Oil Company, Bartlesville, Oklahoma	60,063	54,239
Davis, Caroline A., Somerset	285	227
Devonian Oil Company, Tulsa	20,404	19,690
Dequesne Oil Corporation, Eastland	468	461
Douglas Oil Company, Tulsa	6,068	5,215
Derosa Oil & Gas Company, Amarillo	27,869	25,960
Darby Petroleum Corporation, Tulsa	13,000	9,913

Name—Address	Barrels	Value
Dalton, Jack Oil Company, Fort Worth	974	1,065
Den Wich Oil Company, Abilene	775	845
Elrod, Beabout & Sullivan, San Angelo	3,040	4,429
Ellis & Anderson, San Antonio	62	55
Ellis & DuBose, Fort Worth	1,277	1,052
East Batson Oil Company, Batson	15,112	14,186
Eddleman & Payne, Inc., Wichita Falls	2,905	3,297
Erlewine, A. J., et al, Wilson, Oklahoma	1,959	2,052
Erlewine, A. J., et al (9-30-30), Wilson, Oklahoma	236	276
Empire Gas & Fuel Company, Maine, Bartlesville, Oklahoma	496,249	480,372
Edmondson, J. M., San Antonio	1,101	903
Eckert & Son, San Antonio	6,065	5,776
Engel, E. A., Albany	3,576	4,095
Eckert, F. H., San Antonio	1,410	1,341
Eastland Oil Company, Fort Worth	40,940	33,441
Eppenauer, E. L., Tr., Fort Worth	1,379	1,529
Erie Investment Limited of Texas, Toronto, Canada	324	291
Ernest Oil Company, Rockdale	270	269
Eumo Ol Corporation, Abilene	4,335	4,381
Easton, E. S., Wichita Falls	870	968
Electra Production Company, Inc., Electra	479	519
Ellis & Lancaster, Beaumont	165	148
Eddy Oil Company, Beaumont	1,348	1,271
Elsik & Pomykol, Jr., Brenham	762	520
Elrod, Beabout & Sullivan, San Angelo	2,476	1,547
Eubank, R. O. & B. K., Cross Plains	1,833	1,907
El Rio Oil Company, Amarillo	344	272
Emerald Oil Company of Texas, Winfield, Kansas	2,970	1,538
Easter Oil Corporation, Wichita Falls	30,689	30,833
Estelle Oil Company, Beaumont	560	448
Finlayson-Harrison, et al (9-30-30), Midland	3,529	5,073
Farish & Ireland Lease, Houston	5,784	5,956
Frontier Oil Company, San Antonio	8,506	6,608
Ferguson, W. R., Wichita Falls	637	557
Falls Production Company, Wichita Falls	2,825	3,258
Freeman, J. F., Wichita Falls	2,448	1,846
Freeman-Hampton Oil Corporation, Wichita Falls	6,400	6,905
Fox & Adams, Burkett	8,726	8,342
Fultz, W. B., et al, Graham	1,727	2,112
Fleming & Kimbell, Fort Worth	4,027	2,906
F. H. E. Oil Company, Fort Worth	12,263	11,253
Franklin, Wirt, Ardmore, Oklahoma	227	219
First National Bank, Executor of G. W. Mennis Estate, Wichita Falls	3,152	3,232
Faith Oil Corporation, Wichita Falls	6,595	7,730
Fulton, Tom, Wichita Falls	650	629
Flynn, W. B., Beaumont	4,535	4,454
Fraser, H. H., Wichita Falls	16,600	16,545
Fox, Perry I. & Wm. R. Thorsen, Mertzon	964	818
Fullerton, W. R., Wichita Falls	1,239	1,031
Fountain Production Company, Saratoga	1,270	876
Ferguson & Watson (9-30-30), Electra	1,081	1,546
Ferguson & Watson, Electra	969	1,067
Farlyn Oil Company, Houston	7,625	5,139
Finston, Mark, Special Account, Tulsa	9,105	8,844
French Oil Corporation, San Antonio	18,976	14,852
Four Oil Company, Wichita Falls	901	979
Fresno Oil Company, Wichita Falls	30,372	28,246
Fisher, J. A., Wichita Falls	676	758
Forest Oil Company, Tr. Acct., Luling	4,260	3,834
Fain, L. B. (4-1 to 12-31-30), Rising Star	3,316	4,156
Farmers State Bank, Burkburnett	695	666
First National Bank of Wichita Falls, Wichita Falls	64	67
Fain-McGaha Oil Corporation, Wichita Falls	273,389	288,226
Golding & Cochran, Wichita Falls	32,552	32,462
G-I Oil Company, Wichita Falls	5,555	5,228
Guthrie Cole & Ferguson, Wichita Falls	466	442
Glenridge Oil Corporation, St. Louis, Missouri	3,254	3,788
Gilbert Company, The, Beaumont	6,212	6,253
Godfrey, F. L. (9-30-30), Enid, Oklahoma	52	70
Godley Oil & Gas Company, Dallas	18,648	14,878
Gilman & Conway Bros., Ranger	2,809	3,615
G & K Production Company, Fredericksburg	1,096	974
Goldsmith, N. D., Olney	5,277	5,262
Gates-Bacon-Lea, Wichita Falls	4,444	4,108
Gordon, Ann B., Oil Company, Inc., Dallas	2,833	3,471
Gunn Production Company, Cross Plains	572	667
Ginter-Lange Oil Company, Nacogdoches	1,277	1,217
Ginter-Jones Oil Company, Nacogdoches	397	362
Gray & Adams, Inc., Gainesville	1,920	1,373
Gibson Oil Corporation, Amarillo	26,211	19,550
Gordon & Morris, Breckenridge	1,204	1,521
Gaither Production Company, Rockdale	665	702
Grassroots Oil Corporation, Fort Worth	1,292	1,569
Gillman Bros., Amarillo	881	810
Granite Oil & Gas Company, Ridgway, Colorado	359	385
Gladis Oil Company, Saratoga	2,563	2,148
Gates Oil Company, Ardmore, Oklahoma	2,419	2,665
Gorsuch Oil Company, Abilene	2,102	2,305
Glover & Wall, Vernon	512	515
Gordon Oil Company of Texas, Logan, Ohio	76	101
Graham, W. T., Cisco	233	232
Graham & Lash, Cisco	62	78
Grayce Oil Company, Wichita Falls	16,893	17,596
Green, W. J., Wichita Falls	1,886	2,017
Gallagher & Lawson, Cisco	345	338

Name—Address	Barrels	Value
Golden West Oil Company, San Antonio	19,982	15,948
Group No. 1 Oil Corporation, Fort Worth	720,024	777,040
Galvez Oil Corporation, Tulsa	3,072	3,369
Gulf Production Company, Houston	6,767,930	5,586,285
Goodwin, P. B., et al, Breckenridge	284	266
Goodwin, P. B., Tr., Breckenridge	1,911	1,292
Gatlin Oil Company, San Antonio	730	660
Gardner, Wilson & McCaldin, Wichita Falls	815	902
Grayburg Oil Company, San Antonio	157,234	116,667
Grayback Development Corporation, Wichita Falls	9,995	10,424
Gwynn, P. F., Wichita Falls	15,729	11,191
Gwynn-Boyd Drilling Company, Wichita Falls	1,079	1,333
Gwynn, P. F., Wichita Falls	1,230	1,110
Gunn Production Company (R. C. Williamson), Fort Worth	364	422
Gates Oil Company, San Antonio	2,209	2,224
Graham, Chas., Myra	754	520
Grisham Hunter Corporation, Abilene	2,649	2,782
Gilman, R. F., & J. L. McMurray, Cisco	13,672	15,316
Glass Bros., Rosebud	608	630
Gilliland, C. W., Wichita Falls	1,416	1,567
Gilliland-Rosser Oil Company, Wichita Falls	908	812
Golding, Dudley S., Wichita Falls	20,921	16,512
Grady, D. (T. W. Roberts Lease), Electra	254	223
Grady, D., fee, Electra	420	467
Grady, D. (T. W. Roberts Ls.) (9-30-30), Electra	21	22
Grady, D., fee, (9-30-30), Electra	166	239
Gillette, C. W., Tulsa	345	416
Glasscock Bros., Pettus	3,370	3,787
Gandy & Peyton Oil Corporation, Corsicana	1,698	1,684
Graham & Harrison, South Bend	4,767	5,420
Humble Oil & Refining Company, Houston	6,437,292	6,186,527
Heidrich, E. C., Jr., Amarillo	3,112	2,568
Hynes, F. P. (4-1 to 9-30-30), San Antonio	1,330	1,905
Harris, Jodie P., (3-31-30), Albany	4,132	4,902
Handrick, August, Moran	168	136
Hickey, T. J., et al, Corsicana	60	69
Hoffman, P. L., (9-30-30), Cisco	5,182	1,959
Harrell, J. T., et al (9-30-30), Wichita Falls	46,903	29,536
Hadlock Oil Corporation, El Paso	695	553
Hankamer, Earl C., & Company, Sour Lake	208	199
Hawkins, W. L., Wichita Falls	2,834	3,104
Hambleton, Geo., San Antonio	406	358
Hardy Oil Company, Wichita Falls	1,456	1,189
Hunter Oil Corporation, Chicago, Illinois	22,941	25,723
Hart, J. R., Baird	224	219
Home Oil & Gas Company, Inc., Albany	1,316	1,287
Hamill & Hamill, Bay City	6,516	5,084
Hamilton, W. L., Bridgetown	816	903
Howard, Duffield & Berlin, Tulsa	888	858
Hickory Oil & Gas Corporation, Fort Worth	9,116	10,392
Hamilton & Martin, Wichita Falls	802	809
Hoffman & Page Company, Eastland	12,917	14,678
Harrison Oil Company, Houston	88,848	114,412
Hyde Production Company, Houston	3,892	4,476
Hyde, George, Houston	3,551	3,551
Howard Petroleum Corporation, Tulsa	849	761
Hope Oil & Gas Company, Fort Worth	8,762	8,600
Harrell, J. T., et al, Wichita Falls	433,216	269,976
Hitchman & Howard, Inc., San Antonio	1,748	1,613
Houston Gulf Gas Company, Houston	6,115	4,751
Hanlon Gasoline Company, Tulsa	1,396	1,472
Hughes, J. K., Oil Company, Mexia	15,405	15,914
Hammon Oil Company (9-30-30), Smithport, Pa.	488	612
Hammon, Oil Company, Smithport, Pennsylvania	343	325
Hefley, McIntosh & Thomas, Cameron	583	595
Hoffman, P. L., Cisco	4,693	4,824
H & H Drilling Company, Seminole, Oklahoma	627	502
Hyde & James, Albany	614	657
Hemby, J. M., Electra	793	827
Hedges, F. M., Wichita Falls	246	276
Hamilton, Walter R., Tr., H. L. Hamilton Estate, San Antonio	3,761	3,845
Howard County Oil Corp., Big Spring & Pettus	26,236	19,171
Haskell, Frank, Tulsa	1,722	1,616
Herrogan Oil Corporation, Pampa	11,477	9,941
Herring, S. C., Brownwood	659	820
Hawley, J. A., Guardian Estate, Ottawa, Ontario, Canada	188	196
Holmes Bros., Amarillo	16,539	17,527
Holmes, Hill, Seibold & Holmes, Amarillo	8,401	8,789
Holmes, W. H. & W. W., Amarillo	2,404	2,529
Humphreys Bros., Inc., Houston	1,086	1,187
Humphreys Bros., Houston	368,431	376,534
Hyer, Fred, Fort Worth	12,246	8,782
Hemisphere Oil Corporation, New York	16,951	16,279
Harris & Simons, Tulsa	4,230	2,858
Harper Petroleum Corporation, Bryson	12,478	14,077
Holder, F. W., & J. B. Gordon (9-30-30), Breckenridge	366	416
Holder, F. W., & J. B. Gordon, Breckenridge	280	248
Hinson, G. D., & R. V. Tidwell, Graham	5,255	5,934
Holcombe, Thos., Wichita Falls	1,381	1,158
Horn, T. W., Houston	315	329
Hobbs Ferguson & Neeley, et al, Tulsa	888	888
H-Y Oil Company, Inc., Fort Worth	14,068	14,424
Helvetia Oil Company, San Antonio	10,549	9,127

Name—Address	Barrels	Value
Hynes, F. P., et al, San Antonio	2,194	2,348
Hines, Harry, Wichita Falls	2,105	1,904
Hobbs Oil Company, Tulsa	1,142	1,274
Hardie, J. M. & Company, Sour Lake	76	76
Holmes & Huey, Borger	2,460	2,067
Herbert Oil Company of Texas, Fort Worth	3,862	5,389
Huber, J. M., Petroleum Company, Borger	40,855	25,861
H. B. J. Oil & Gas Trust, Baltimore, Maryland	1,689	1,832
Harwell, E. P., Tulsa	901	1,021
Hammon, W. H., Wichita Falls	21,410	25,424
Hammon & Heyser, Wichita Falls	9,570	10,173
Hamilton, W. B., Wichita Falls	18,061	14,368
Holbrook & Woods, Wichita Falls	5,352	4,323
Hill & Dowell, Batson	9,465	9,551
Halmack Oil Company, Dallas	136	153
Hoppes, W. T., Burkburnett	33	36
Hoppes, W. T., Burkburnett	419	431
Houston Production Company, Houston	41,466	44,434
Hamon, Jake L., Ardmore, Oklahoma	22,231	25,116
Hoffman & McKibben, Cisco	718	941
Hoffman, P. L. (5-1-30 to 9-30-30), Cisco	7,664	9,982
Hoffman & McKibben (1-1-27 to 12-31-30), Cisco	14,834	21,179
Harrell, J. T., Wichita Falls	1,821	1,504
Hedrick-Camp Drilling Company, Wichita Falls	9,811	8,254
Heydrick, L. C. (9-30-30), Wichita Falls	12,155	16,327
Hoffman, P. L., Cisco	1,070	1,095
Heydrick, L. C., Wichita Falls	9,203	7,627
Hynes, F. P., et al, San Antonio	465	553
Houghland Production Company, Dallas	1,648	1,406
Houston Oil Company of Texas, et al, Houston	518,469	450,184
Hunter, I. F., Wichita Falls	24,467	27,600
Infield Petroleum Company, Austin	380	323
Ingram, J. A., Shawnee, Oklahoma	422	375
Jones, O. P., & C. J. Oates, Amarillo	987	883
Jones, J. A., Moran	186	199
Jones, W. A., Minerva	1,627	1,606
Jonray Oil Company, San Antonio	1,759	1,469
Jackson, T. H., Sipe Springs	29	26
Jones, Edwin M., San Antonio	71,751	62,107
Julian, C. C., Oil & Royalties Company, et al, Oklahoma City	17,184	13,945
Julian, C. C., Oil & Royalties Company, and Darby Petroleum Company, Oklahoma City	10,877	8,213
James, Tom, Albany	5,041	5,362
Janellen Oil Company, Tulsa	37	37
Justin Oil Corporation, et al, Wichita Falls	6,242	6,411
Jones, J. E., Wichita Falls	1,952	1,670
Johnson Bros., San Antonio	5,015	4,584
Judson Oil Company, Tulsa	6,294	6,895
Jackson, J. S., Tr., Sour Lake	2,661	2,657
Julia Oil Company, Sour Lake	3,090	3,108
Jason Oil & Gas Company, Inc. (9-30-30), Houston	79	102
Jason Oil & Gas Company, Inc. (6-30-30), Houston	159	210
Jacob Oil & Gas Company, Graham	1,216	1,509
Kleinfelder, B. F., Breckenridge	260	285
Kimbell, G. T. & John L. Bostic, Burkburnett	4,589	5,047
Kerr, T. P., Corsicana	512	541
Knox, D. M., Graham	2,665	3,241
Kimmell & Woofter, Wichita Falls	4,345	4,188
Kent, G. C., Corsicana	14,107	13,875
Kurz Oil Company, Somerset	444	345
Karona Oil Company, Refugio	6,089	4,842
Kuhlemeier-Kleiner Oil Company, Cisco	1,545	1,760
Kemrow Company, Wooster, Ohio	13,050	12,400
Keystone Production Company of Texas, Fort Worth	2,668	3,148
Kiser & Fleming, Albany	5,669	3,428
Kokomo Petroleum Company, Gorman	168	173
Kay, A. W., Receiver, Graham	618	671
Kay, A. W., et al, Graham	3,849	4,612
Kleiner, Charles J., Cisco	20,256	20,550
Koenig, Max W., Oakland, California	16,093	12,539
Kelly, Geo. L., Wichita Falls	533	586
Kidney-Kamon, et al, Fort Worth	1,912	2,383
Kavanaugh Petroleum Company, Houston	3,121	3,261
Kahle, Gracey & Diver, Bridgeport, Illinois	2,091	1,405
Knotts, Nona A., Wichita Falls	560	632
Kaufman, L., San Antonio	236	181
Kendrick, P. S., Albany	2,797	2,717
Kewanee Oil & Gas Company, Titusville, Pa.	146,835	155,587
King, R. A., Tr., Wichita Falls	830	622
King & Daniel, Wichita Falls	5,887	5,281
Kistler, Frank E., & Company, San Antonio	3,514	2,314
Killam, O. W., Laredo	278,385	216,385
Kolp, C. F., Electra	16,182	17,046
Kate Bell Oil Company, The, Dallas	571	654
Keck Investment Company, Los Angeles, California	4,879	3,499
Kirby Petroleum Company, Houston	132,165	92,194
Keller, J. E. (9-30-30), Iowa Park	238	335
Keller, J. E., Iowa Park	215	227
Kisk Oil Company, Wichita Falls	646	543
Keener Oil & Gas Company of Texas, Tulsa	3,329	3,482
King Royalty Company, Wichita Falls	127,561	120,438
Larcro Gas & Petroleum Company, Refugio	59,618	41,136
Lomax, Thornton, Jr., Wichita Falls	2,002	1,525
Lackey, W. G., Company, Tulsa	1,490	1,648
Lake View Oil Company, Sour Lake	10,506	10,697
Lesh & McCall, Nocona	12,892	8,698
Lesh, Kilcrease & Company, Nocona	1,447	1,077
Lewis, J. E., et al, Eastland	917	1,000
Luling Oil & Gas Company, San Antonio	37,011	28,930
Lewis, J. E. & Company, Eastland	2,053	2,369
Little, Wm., Breckenridge	156	143
Long, Roy Oil Company, Navasota	1,651	1,759
Ledger Oil & Gas Company, Brownwood	617	677
Lefors Petroleum Company, Inc., Lefors	25,100	24,004
Lockhart & Company, Los Angeles, California	76,803	67,222
Lido Oil Company and McGinley Corporation, Wichita Falls and Fort Worth	15,606	14,707
Layne, L. A. (9-30-30), Houston	1,316	1,513
Layne, L. A. (6-30-30), Houston	2,787	3,065
Layne, L. A., Houston	4,338	4,511
Lowenstein Oil Company, Rockdale	855	971
Lytle, C. F., Mexia	8,413	8,492
Loggie & Arendt Oil Company, Albany	2,306	2,301
Lion Oil Refining Company, El Dorado, Arkansas	525,183	355,847
Lake Graham Oil Co., Houston	2,529	2,592
Lindsay, R. W., Drilling Co., Graham	104	114
Lindsay, R. W., Drilling Co., Graham	249	264
Linedo Oil Co., Lincoln, Neb.	726	545
Lee, Homer, Wichita Falls	12,027	13,369
Lewis Production Co., Pittsburgh, Pa.	21,317	22,231
Lone Star Gas Co., Dallas	37,868	46,938
Lee & Wilson, Houston	7,072	6,357
Lee & Scott, Inc., Houston	1,786	1,786
Leck Royalty & Oil Co., Fort Worth	3,885	4,727
Last Chance Gas Co., Pampa	283	241
Lawson, Eugene B., Tulsa, Okla.	32,671	34,148
Landreth Production Corp., Fort Worth	203,272	151,815
Len-Cook Oil Co., Electra	451	482
Len-Cook Oil Co. (9-30-30) Electra	373	534
Lowe, W. E., Tr., De Leon	110	95
Letwin & Lippitt, Breckenridge	10,238	11,023
Langford Oil Co., Inc., Wichita Falls	1,123	1,032
Lowe, Delaney & Carter, De Leon	1,632	1,589
Leonard, Geo., Somerset	913	720
Leonard Oil Co., Somerset	171	132
Lebow, C. H., Tulsa, Okla.	1,210	1,344
Louisiana Oil Refining Corp., Shreveport, La.	344,731	339,725
Long, C. B., et al, Wichita Falls	196	176
Little Flower Oil Co., Sour Lake	353	357
Lesh, John I. & Co., Nocona	3,815	2,610
Leiser-Rochmill Production Co., Inc., Ft. Worth	1,688	1,932
Lanning, Mrs. R. A., (9-30-30) Wichita Falls	68,884	103,542
Lela Oil & Gas Co., Amarillo	304	161
LaSalle Petroleum Co., Tulsa, Okla.	3,523	3,616
Long, L. A., Graham	2,719	3,243
McMan Oil & Gas Company, (P. A. Chapman Estate Int.), Tulsa, Okla.	10,258	10,774
McHugh, G. E. (9-30-30), Graham	199	260
McDaniel, D. B., Houston	30,208	30,047
McAlbert Oil Company, Inc., Houston	120,674	119,796
McCarty Oil Company (9-30-30) Wichita Falls	696	945
McChesney, Nancy, Olney	3,788	2,473
McNallen & Griffin, Tulsa, Okla.	5,334	5,731
McCarter, R. C., Rising Star	977	1,094
McClure, Eddington, Wichita Falls	161	98
McCutchen, C. E., Wichita Falls	213	200
McCormick & Noack Oil Company, Tockdale	71	66
McMan Oil & Gas Company, Tulsa, Okla.	993,951	609,757
McNamara Oil Company, Beaumont	2,423	2,372
McCarty Oil Company, Wichita Falls	69,570	79,219
McLean, Marrs, Beaumont	38,850	28,405
McFall, J. M., Wichita Falls	555	578
McCutchen, C. E., Trustee, Wichita Falls	2,319	2,598
McMurray, Root & Rhodes, Eastland	656	912
McIlroy Oil Company, Amarillo	32,512	16,959
McDaniel Oil Corporation, Cisco	4,217	5,003
McLester Oil Company, Eastland	8,840	11,115
McMurray, J. L. et al, Cisco	1,590	1,910
McDonald & Campbell, Dallas	3,410	3,821
McKanna, Inc., Wichita Falls	5,657	8,885
McCrary, E. W., Tulsa, Okla.	4,145	4,255
McJunkin, Florence T. et al, Tulsa, Okla.	583	661
McGraw Oil Company, Tulsa, Okla.	442	513
Magnolia Petroleum Company, Dallas	2,508,687	2,192,153
Maxwell, J. C., Fort Worth	37,029	26,957
Morgan, Ray et al, Fort Worth	540	632
Marnet Oil & Gas Company, Tulsa, Okla.	4,851	5,089
Magee, R. B., Wichita Falls	919	993
Meredith & Gant, Wichita Falls	2,192	2,061
Metzgar Oil Company (9-30-30) Cisco	2,414	2,590
Martex Oil Company (1-1-27 to 9-30-30) San Antonio	68,952	67,234
Minor Oil Company, The, Beaumont	8,293	8,164
M-C-H Oil Co., (12-31-30), Albany	1,425	1,174
Mancill, R. W., Cisco	39	32
Mills & Garritty, Corsicana	2,313	1,976
Martin, Drake & Jones (9-30-30), Houston	17,246	19,833
Menke, John G., Wichita Falls	801	913
Moore, N. A., Eastland	813	863
Macknold Company, San Antonio	186	146
Martin, N. H., Wichita Falls	12,300	11,196
Martin & Hamilton, Wichita Falls	2,583	2,617
Medio Oil Company, San Antonio	763	604
Madden, E. B., Olney	13,883	14,236
Madden & Hunt (9-30-30), Olney	10,714	10,418

Name—Address	Barrels	Value
Mount & Lee, Inc., Wichita Falls	1,336	1,393
Minerva Petroleum Company, Minerva	798	840
Mendenhall Oil Company, Cisco	962	1,172
Milham Corporation of Texas, Fort Worth	1,359	1,513
M-C-H Oil Co., (12-31-30), Albany	1,425	1,174
Mordyan Petroleum Company, Pampa	24,449	22,416
Midwest Exploration Company, Tulsa, Okla.	132,989	123,316
Midland Oil Company, Fort Worth	312	314
Major, A. W., Laredo	1,663	1,304
Minnehome Oil & Gas Company, Tulsa, Okla.	603	427
Medina Oil & Gas Association, San Antonio	131	101
M. & V. Oil Company, Wichita Falls	2,828	2,486
Madison Oil & Gas Company, Electra	3,188	3,366
Mitcham, G. P., Cisco	941	903
Maxwell, J. C. (additional tax 12-31-30) Ft. Worth	84,946	58,863
Montgomery-Rea-Montgomery, Sedwick	1,181	1,292
Moody Corporation, Houston	510,561	442,049
Moody-Seagraves Producing Company, San Antonio	579,452	578,170
Maun, Floyd, Graham	1,532	1,743
Moore, F. L., Trustee, Tulsa, Okla.	1,784	1,917
Merrick & Belcher, Wichita Falls	5,122	5,980
Moss & Urschell, Dallas	11,854	11,790
Moss, Urschell & Keys, Dallas	5,173	5,425
Mayberry, C. R. Company, Laredo	1,909	1,476
Murchison Oil Company, Dallas	83,147	60,552
Millikin, L. L., Burkburnett	294	252
Merrick & Bristow, Ardmore, Okla.	66,722	38,845
Merrick & Lamb, Ardmore, Okla.	28,487	21,607
Merrick, John F., Wichita Falls	378	359
Mills Bennett Production Company, Houston	351,280	360,275
Marts, E. R. et al, Dallas	30,186	20,829
Meredith, J. D., Moran	2,988	2,705
Merrick & Goldsmith, Wichita Falls	3,434	3,733
Massie, J. H., Wichita Falls	41,686	38,399
Mecom Oil Company, Liberty	2,785	2,785
Meridian Petroleum Corporation, Tulsa, Okla.	4,331	4,323
Moran Company, The, Wichita Falls	10,750	9,391
Marshall, George S., Laredo	3,154	2,366
Marine Corporation, Dallas	676	508
Mid-Texas Petroleum Co., Oklahoma City, Okla.	12,289	14,049
Midwest & Gulf Co. of Texas (Turst Estate) Tulsa	1,395	1,155
Minnetex Oil Corporation, Wichita Falls	679	618
Mid-Continent Pet. Corp., Tulsa, Okla.	11,840	13,238
Mid-Kansas Oil & Gas Co., Findlay, Ohio	4,341,411	3,093,027
Mozzle Oil Corporation, Eastland	966	989
Mueller, Alvin P. (Receiver for D. D. Baker et al) Seguin	57,145	27,415
McGinley Corporation, The, Fort Worth	3,901	2,105
Mues & MacDermott, Fort Worth	325	356
MacDermott, W. F., Fort Worth	450	495
McBride, W. C., Inc., St. Louis, Mo.	5,672	4,883
Newport & Ohio Petroleum Co., Newport, N. Y.	472	502
Navarro Oil Company, Houston	170,149	172,970
Newton and Lillie, reported by Keen & Wolf Oil Co., Shreveport, La.	17,200	17,476
National Oil Company, San Antonio	610	477
Nordan & Morris, Laredo	978	753
Nix & Dale, Wichita Falls	787	826
Nabob Oil & Gas Company, Amarillo	13,678	13,331
Nash, Windfohr & Perry, Austin	47,464	53,011
Noack & Lanning-Phillips, Rockdale	81	75
Noack Oil Company, Rockdale	1,282	1,414
Noack & Lanning-Shelton, Rockdale	235	239
Newton-Palmer Oil Company, Rockdale	366	372
North Fork Oil Company, Amarillo	3,362	2,808
Number Nine Oil Corporation, Tulsa, Okla.	2,359	2,563
Nutt & Gates, Wichita Falls	2,198	2,537
Nash & Windfohr Oil Corp., Graham	36,496	43,488
O. & A. Oil Company, Laredo	4,154	3,531
Ocean Oil & Refining Co., El Paso	699	706
Oasis Oil Company, Wichita Falls	113	108
Onsen, Mamie, Kansas City	1,043	1,703
Owenwood Pool No. 3, J. W. Robins, Fort Worth	3,836	3,975
Oil Investment Company, Wichita Falls	1,368	1,421
Oriental Oil Company, Dallas	346	354
Oleny Oil & Refining Company, Wichita Falls	135	135
O'Neil, John, Wichita Falls	11,523	12,720
O. & A. Oil Company, Laredo	3,094	2,335
Omilak Oil Company, Spokane, Washington	165	137
Oldom, Wm. P., Iowa Park	567	619
Olean Petroleum Company, Bristow, Oklahoma	13,081	9,635
Owen-Sloan Oil Company, Forsen	36,247	22,452
Orange Petroleum Corporation, Orangefield	25,570	25,944
Ohio Somerset Oil Co., The, Cleveland, Ohio	1,194	947
Oklahoma Company of Texas (Formerly George J. Biles), Tulsa, Oklahoma	3,391	3,368
Onsen, M., Kansas City, Mo.	822	984
Ocean Oil & Refining Co., El Paso	704	563
Patten Production Company, Taylor	3,355	2,180
Production Supply & Tool Co., The, Marietta, Ohio	16,047	16,897
Palm, F. N. et al, Albany	889	759
Porterfield, R. R., Graham	5,259	5,811
Progressive Production Company (9-30-30) Kansas City, Mo.	1,004	1,433
Palm, F. N. et al, (9-30-30) Albany	1,255	1,343
Phillips Petroleum Company, Bartlesville, Okla.	513,584	429,675
Phillips Petroleum Company, Bartlesville, Okla.	1,353	1,167
Phillips Petroleum Company, Bartlesville, Okla.	3,978	3,210
Phillips Petroleum Company, Bartlesville, Okla.	547,995	532,079
Phillips Petroleum Company, Bartlesville, Okla.	10,774	12,771
Phillips Petroleum Company, Bartlesville, Okla.	11,851	13,972
Phillips Petroleum Company, Bartlesville, Okla.	703	810
Phillips Petroleum Company, Bartlesville, Okla.	8,104	9,262
Phillips Petroleum Company, Bartlesville, Okla.	28,837	32,223
Phillips Petroleum Company, Bartlesville, Okla.	5,754	6,402
Phillips Petroleum Company, Bartlesville, Okla.	11,298	12,772
Phillips Petroleum Company, Bartlesville, Okla.	939	1,062
Phillips Petroleum Company, Bartlesville, Okla.	40,690	45,212
Phillips Petroleum Company, Bartlesville, Okla.	157,788	159,370
Phillips Petroleum Company, Bartlesville, Okla.	172,410	120,186
Phillips Petroleum Company, Bartlesville, Okla.	43,416	30,332
Phillips Petroleum Company, Bartlesville, Okla.	22,471	20,297
Phillips Petroleum Company, Bartlesville, Okla.	27,081	17,300
Phillips Petroleum Company, Bartlesville, Okla.	62,508	41,621
Phillips Petroleum Company, Bartlesville, Okla.	88,235	93,435
Petroleum Producers Company, Wichita Falls	80,200	79,143
Price, E. W., San Antonio	4,618	3,464
Perkins & Cullum, Wichita Falls	135,176	121,672
Putnam Supply Company & McGee, Putnam	415	407
Putnam Oil Company, Tulsa, Okla.	31,754	34,487
Plymouth Oil Company, Pittsburgh, Pa.	77,709	56,821
Pitzer & West, Breckenridge	13,920	17,173
Pace, Geo. L., Wichita Falls	18,804	20,704
Piper, L. E., Trustee, Vernon	1,755	1,976
Powell, J. L. et al, Wichita Falls	356	378
Permian Oil Company & Gibson & Johnson, Inc., Eastland	3,384	4,206
Pearson Oil Company, San Antonio	480	480
Palo Duro Oil Company, Amarillo	4,176	2,088
Pivoto, M. E., Sour Lake	7,162	7,102
Pollard, W. E. & C. E., Pampa	3,801	3,565
Preston Oil & Gas Company, Brownwood	185	181
Pure Oil Company, The, Chicago, Ill.	2,121,237	2,094,959
Pure Oil Company, The, Chicago, Ill.	534,223	518,320
Py-Tex Oil Company, Brownwood	487	544
Prechel, Walter, Wichita Falls	493	570
Portland Drilling Corporation, Wichita Falls	604	650
Price-Russell & Company, Ranger	3,231	3,706
Panhandle & Santa Fe Ry. Co., Wichita, Kan.	5,755	2,877
Powers Production Company, Houston	2,690	2,060
Pandem Oil Corporation, Wichita Falls	21,241	16,981
Pioneer Oil, Gas & Refining Co., Somerset	998	915
Pettit Oil Corporation, Trees, La.	1,371	1,656
Peckham, F. W., Stamford	1,871	1,834
Proctor, George, Wichita Falls	15,721	17,490
Pemeta Oil Company, Fort Worth	3,085	3,374
Peery, Thos. H., Wichita Falls	1,825	2,129
Piney Oil & Gas Company, New York, N. Y.	4,984	3,546
Pois, M., et al, Wichita Falls	2,596	2,923
Pois, M., Trustee, Wichita Falls	84	98
Pois-Fine & Schulz, Wichita Falls	476	547
Producers & Refiners Corp. of Texas, Independence, Kansas	5,689	5,360
Prairie Oil & Gas Co., The, Independence, Kansas	949,196	842,893
Primrose Oil Company, Sour Lake	1,216	1,268
Poor Boy Oil Company, Rockdale	308	314
Penn Oil Company, Dallas	14,393	12,577
Pilkerton, F. L., Burkburnett	966	770
Perkins & Snider Lease, Wichita Falls	5,043	4,514
Pecos Crude Oil Purchasing Co., San Angelo	2,133	750
Paraffine Oil Company, The, Houston	11,843	11,757
Powell, T. O., Cross Plains	123	123
Philp Bros., Beaumont	3,290	3,308
Progressive Production Company (12-31-30) Kansas City, Mo.	819	908
Paggi Bros. Oil Co., Beaumont	7,442	7,391
Paggi, Chas. & Co., Beaumont	479	460
Phair, F. L. & L. W. Wright, Houston	345	215
Pace & Ward, Breckenridge	1,076	1,365
Pace & Grant, Wichita Falls	10,016	11,517
Poole, B. O., Batson	2,214	2,241
Producers Drilling Company, Wichita Falls	1,513	1,518
Pearson, W. O., Prop. (9-30-30) Corpus Christi	63,768	71,774
Producers Oil Company (12-31-30), Tulsa, Okla.	64,795	62,551
Producers Oil Company (9-30-30), Tulsa, Okla.	5,403	7,148
Phillips, J. R., Amarillo	2,220	1,616
Panhandle Refining Company, Wichita Falls	130,292	133,313
Palmer, Freddie Oil Company, Rockdale	141	159
Pace, Geo. L. (9-30-30), Acct. F. F. Wilson, Wichita Falls	3,289	4,695
Pace, Geo. L. (12-31-30), Acct. F. F. Wilson, Wichita Falls	10,016	11,517
Pinto Oil Company (12-31-30), Mineral Wells	103	115
Pinto Oil Company (9-30-30), Mineral Wells	175	194
Proctor Oil Company, Wichita Falls	14,094	19,875
Petroleum Investment Company, Wichita Falls	3,388	3,766
Quinn, J. W. et al, Eastland	1,894	2,240
Quincy Oil Company, Vernon	153	156
Roeser & Pendleton, Inc., Fort Worth	146,668	167,567
Rhett-Wilder et al (9-30-30), Rockdale	5,429	4,072
Rhett-Wilder et al (12-31-30), Rockdale	5,617	3,738
Reclamation Company, The, Fort Worth	4,070	4,284
Rock Island Oil Company (3-31-30), Amarillo	527	622

Name—Address	Barrels	Value
Rock Island Oil Company (6-30-30), Amarillo	800	802
Rock Island Oil Company (9-30-30), Amarillo	522	548
Rycade Oil Corporation, Houston	20,154	20,344
Robinson, J. B., Sour Lake	169	195
Red River Oil Company, Tulsa, Okla.	25,527	27,902
Ramming, R. W., Wichita Falls	411	475
Ramming, Staley & Ramming, Wichita Falls	530	563
Ramming, W. F., Wichita Falls	128	140
Robinson, Arthur D., Dallas	6,055	5,700
Ramsel, W. T. Oil Company, Rockdale	1,534	1,575
Rex-Tex Oil Company, Brownwood	487	544
Ruby Oil Company, Minerva	159	162
Rockdale Junior Oil Company, Rockdale	208	219
Rountree, White & Kemp, Rockdale	479	488
Reed, W. M., Breckenridge	1,038	1,035
Reed, W. M., Breckenridge	65	58
Richardson & Kelsey, Fort Worth	63,153	46,748
Rex Petroleum Corporation, Vinton, La.	16,929	17,611
Royalty Oil Corporation, F. S. Preston, Receiver, Brownwood	60	50
Rancho Oil Company, Fort Worth	7,981	7,955
Rio Bravo Oil Company, Houston	561,430	596,796
Ruthada Oil Company, for H. L. Sturm, Ardmore, Oklahoma	5,825	4,531
Rubsam & Hunter, Wichita Falls	5,851	5,312
Riner & Bailey, Wichita Falls	28,110	25,880
Riner & Onohundro, Wichita Falls	8,471	9,459
Reiter-Foster Oil Corporation, Tulsa, Okla.	8,174	10,213
Rowe, J. G., Wichita Falls	2,239	2,525
Reno Oil Company, Sistersville, W. Va.	39,381	42,265
Riggs & Oliphant, Graham	7,755	8,366
Riggs, E. R., Graham	62,643	49,047
Reed, Crenshaw & Glass, Nowata, Okla.	7,685	6,897
Randado Oil Corporation, Oklahoma City, Okla.	16,135	12,377
Roth & Faurot Oil & Gas Co., The, Independence, Kansas	2,875	3,818
Reeder & Scarborough, Wichita Falls	2,148	3,490
Ranell Oil Company, Oklahoma City, Okla.	3,668	3,595
Ruyle Farm & Oil Company, Wichita Falls	6,481	6,833
Robertson, R. R., Wichita Falls	2,751	2,733
Royal Producing Company, The, Houston	3,944	3,944
Rentex Oil Company, San Antonio	6,872	6,187
Russell & Wilson, Wichita Falls	4,489	4,146
Rock Creek Oil Corporation, Amarillo	3,032	1,864
Red Bank Oil Company, Tulsa, Okla.	4,510	5,231
Root Drilling Company, Eastland	2,452	2,855
Root & Fehl, Eastland	4,767	5,112
Root, C. M., Eastland	6,984	8,084
Root, Rhodes, Gilman & McMurray, Eastland	4,240	4,915
Root & Rhodes, Eastland	3,791	4,218
Richard & Kohlman, Iowa Park	478	413
Reeder, R. S., et al, Wichita Falls	761	748
Rockwell, J. A. & Company, Warren, Penn.	1,894	1,986
Ryan Consolidated Petroleum Corp., Tulsa, Okla.	53,314	53,683
Ruthada Oil Company, Oklahoma City, Okla.	17,186	14,183
Rhodes, Highers & Christie, Breckenridge	141	128
Rhodes & Highers, Breckenridge	3,777	4,152
Rathke Oil Company, Wichita Falls	22,657	20,301
Republic Production Company, Houston	512,847	451,421
Robinson, O. D., Pittsburgh, Pa.	1,635	1,479
Rockdale Oil Company, Rockdale	49	49
Rochmill, Trustee, Henry, Fort Worth	842	1,041
Refugio Oil Corporation, Refugio	14,626	11,482
Rhett-Wilder et al (12-31-30), Rockdale (Southern Production Company)	5,617	3,738
Rhett-Wilder et al (12-31-30), Rockdale	432	292
Rush-Anderson & Moor, Big Spring	20,492	18,531
Southwest Royalty Company, Wichita Falls	11,125	8,402
Syndicate Oil Corporation, Rochester, N. Y.	875	1,082
Shell Petroleum Corporation, St. Louis, Mo.	3,661,708	1,157,074
Scarborough, W. A., Burkburnett	933	976
Stein, H., Ranger	403	485
Surf Oil Company (3-31-30), Abilene	3,677	4,603
Surf Oil Company, (6-30-30), Abilene	3,344	4,403
Surf Oil Company (12-31-30), Abilene	3,083	4,095
Staley, J. A., Wichita Falls	906	958
Shoup, O. H. Jr., (12-31-30), Colorado Springs, Colo	1,271	1,406
Shoup, O. H. Jr., (9-30-30), Colorado Springs, Colo	1,434	1,969
Shackelford Oil Company, Ranger	7,215	10,121
Swearingen, W. R., et al, San Antonio	1,093	1,334
Strawn & Fisher, (9-30-30), Electra	989	1,279
Sedwick & Webb, Albany	37	31
Southern Drilling & Production Co., Bay City	20,437	22,425
Stephens Oil Company, Sour Lake	491	432
Stapp & Keister, Knoxville	236	276
Schlicher Oil Company, Beaumont	173	199
Sand Creek Oil Company, Amarillo	1,610	1,421
Supreme Oil Company, Orange	2,010	2,073
Stratton, Ed. F., Pioneer	293	307
Smith, Mrs. James L., Amarillo	1,434	1,306
Smith, Levi, Texon	259	342
Smith, Levi & Fred Hyer, Texon	394	477
Smith, Levi & J. C. Shaffer, Texon	71	76
Smith, Levi et al, Texon	9,728	12,631
Smith & Ash, Wichita, Kansas	14,866	16,005
Somerset Crude Oil & Refg. Co., Somerset	2,484	2,091
Somerset Oil Co., Somerset	933	782
Shankle Newton Oil & Gas Co., Laredo	91,877	71,471
Simmons, T. K. Tulsa, Okla.	730	749
Strelsky, Joe & Hefley, Rockdale	174	197
Stratton, G., Waco	80,925	58,037
Skinner, E. W., Saratoga	4,233	4,118
Swanner, John L., Wichita Falls	1,380	1,477
South Shore Oil Company, Houston	5,407	4,328
South Texas Petroleum Company, Houston	118,196	150,543
Star Drilling Company, Wichita Falls	7,675	8,818
Saratoga Oil Company, Wichita Falls	670	741
Shappell Oil Company, Wichita Falls	41,715	42,005
Stevall, E. C. & Son, Fraham	3,065	3,897
Speed, C. D., Corsicana	236	249
Scott, W. M., Wichita Falls	1,753	1,996
Shattuck, Mrs. Nellie S., Dallas	2,708	2,905
Schermerhorn-Winton Company, Minneapolis, Minn.	60,474	43,874
Standard Oil Land & Leasing Co., Electra	211	238
Slicker, Homer, Cisco	843	889
Smith & McDannald, (12-31-30), Electra	1,535	1,551
Smith & McDannald, (9-30-30), Electra	3,511	4,596
Sessions, I. P., Rockdale	426	420
Smith, McIntosh & Thomas (Colter Lease), Cameron	1,172	1,233
Smith, McIntosh & Thomas (Henry Lease), Cameron	553	548
Smith, W. B., Eastland	405	445
Simms Oil Company, Dallas	922,417	684,317
Spencer, H. H. & Co., Burkburnett	213	182
Sheffield Oil Company, Houston	5,098	4,453
Sircovich, A. & Mrs. F. M. Thomas, Houston	358	256
Schulz & Weaver, Wichita Falls	7,560	5,945
Stroube & Stroube, Corsicana	79,201	67,824
Schermerhorn Oil Company, Tulsa, Okla.	122,446	78,338
Snowden & McSweeney Co., New York, N. Y.	51,575	55,617
Staniforth, M., Wichita Falls	1,437	1,710
Southern Petroleum Exploration, Inc., Sistersville, West Virginia	38,363	34,493
S. R. & C. Oil Corporation, San Antonio	130,820	110,514
Sequoia Oil Company, Fort Worth	73,514	49,714
Sequoia Oil Company, Fort Worth	1,483	960
Simpson, O. H., Fort Worth	673	601
Summit Oil & Refining Co., Amarillo	309	256
Schaffner, E. N. et al, Cross Plains	931	843
Smith, E. L. Oil Co., Inc., Mexia	106,453	95,765
Sinclair Oil & Gas Company, Houston	316,707	322,596
Swearingen, W. R. et al, San Antonio	1,604	1,539
Simpson-Fell Oil Company et al, Ardmore, Okla.	10,056	8,394
Spring Creek Oil Company, Amarillo	1,818	1,538
Swearingen Oil Company, San Antonio	3,213	3,083
Selby Oil & Gas Company, Tulsa, Okla.	6,016	7,274
Stella Oil Company, Beaumont	14,189	12,925
Sandefer-Atkinson-Daniel Oil Corp., Breckenridge	2,989	3,643
Sink, Joel, Corsicana	216	224
Salado Oil Company, San Antonio	1,477	1,405
Sinclair Oil & Gas Company, Tulsa, Okla.	93,397	101,251
Southern Crude Oil Purchasing Co., Fort Worth	1,776,679	1,209,656
Sullivan, M. J., Kansas City, Mo.	268	226
Superior Oil Producing Co., Tulsa, Okla.	567	624
Sprague Oil Company, Ardmore, Okla.	13,034	7,057
Sherman Oil & Gas Co., Sherman	669	363
Scott & Walker, Albany	1,853	2,160
S. & W. Oil Company, Amarillo	6,767	3,608
Stekoll, Harry, Tulsa, Okla.	26,849	24,062
Slick, Thomas B. Estate, Deceased, Okla. City, Okla.	29,043	33,100
Skelly Oil Company, Tulsa, Okla.	563,316	439,353
Saigh, N. A., San Antonio	986	956
Schoolfield, R. E., Oklahoma City, Okla.	211	207
Shasta Oil Company, Wichita Falls	751	794
Stoop, J. P., Ranger	217	195
Shertzer Bros., Dewey, Okla.	4,666	5,272
Stock, H. L., Cisco	2,459	2,692
Scott & Nance, Graham	2,425	2,822
Scott & Britton, Graham	219	249
Seybert Brothers, Mooringsport, La.	1,953	2,337
Schaffner-Wilson et al, Pampa	1,230	1,407
Southern Oil & Production Co., Fort Worth	987	1,056
St. Marys Oil & Gas Company, St. Marys, W. Va.	43,642	39,217
Sedwick Oil Company, Tulsa, Okla.	9,145	9,493
Sheldon, C. P., Electra	7,589	7,559
Schlaffke & Blair, Electra	9,801	9,962
States Oil Corporation, Eastland	45,568	50,026
Storey-Friebele-Duffey Oil Co., Winston-Salem, N. C.	5,059	3,681
Storey-Friebele-Duffey Oil Co., Winston-Salem, N. C.	27,796	19,136
Senter, E. G. Jr., Dallas	377	494
Sipe Springs Oil Company, Tulsa, Okla.	4,581	4,918
Sheldon, W. J., (9-30-30), Electra	3,514	5,187
Seldon, W. J. (12-30-30), Electra	3,077	3,443
Skia-Tex Petroleum Company, Amarillo	17,085	15,223
Sun Oil Company, Dallas	1,782,715	1,753,989
Shaw Oil Company, Wichita Falls	38,321	36,967
Sunray Oil Company, Tulsa, Okla.	128,953	75,811
Shamrock Oil & Gas Company, Amarillo	123,483	99,906
Saxet Oil Company, Houston	285,710	259,200
Summerfield Oil Company, Tulsa, Okla.	133	136
Tidwell, H. L. Trs., Graham	834	880
Trinity Townsite Company, Dallas	607	689
Taylor-Sibley Syndicate, Dallas	2,118	2,387
Trevino Oil Corporation, Laredo	24,919	19,469

Name—Address	Barrels	Value
Talbot & Markle, Houston	4,604	4,407
Teatsorth, L. et al, Eastland	1,549	1,737
Texas Fidelity Oil Corporation, Fort Worth	6,239	7,236
Trimont Petroleum Company, Shreveport, La.	5,789	6,950
Tannehill, L. B., Albany	26,239	25,529
Triangle Oil & Gas Co., Rockdale	982	980
Tegler, F. E., San Antonio	274	329
Texas Petroleum Development Co., Cameron	4,115	4,279
Teci Production Company, Breckenridge	1,595	1,868
Texas Petroleum Company, San Antonio	34,293	26,975
Thaxton, W. H. Estate, Austin	422	394
Treat, E. M. Oil & Gas Company, Pittsburgh, Pa.	1,125	1,223
Trinity Production Company, Wichita Falls	399	424
Travelers Oil Company, Amarillo	9,218	8,445
Thomas, J. A., Burkburnett	1,665	1,637
Timblin, W. E., Wichita Falls	163	174
Triangle Petroleum Co., Inc., Fort Worth	491	510
Tillery, L. J., Oil Co., Inc., Beaumont	10,847	11,289
Tripplehorn, J. W. & D. R., Fort Worth	2,538	2,546
Texas Consolidated Oil Co., San Francisco, Calif.	16,013	20,023
Texon Oil & Land Co. of Texas, Fort Worth	71,683	47,999
Tidwell, R. V., Trs., Graham	2,602	2,962
Thompson, J. E., Humble	568	568
Taylor-Link Oil Company, Houston	64,001	45,692
Ticker, Art, Graham	2,120	2,469
Traylor-Rutherford Oil Corp., Refugio	57,077	44,186
Texas Unity Oil Company, Houston	460	555
Tucker Oil Company, Wichita Falls	75,519	74,279
Thomasson, E. M. & Co., Inc., Denver, Colo.	343	397
Taylor Development Company, Taylor	8,011	5,207
Theis Oil Company, Sour Lake	2,717	2,785
Tripplehorn, D. R., Pampa	4,416	4,135
Tholl Oil Company, Beaumont	3,164	3,610
Turman Oil Company, Tulsa, Okla.	23,199	26,304
Tidal Oil Company, Tulsa, Okla.	212,963	165,879
Timms-Fogarty Oil Corp., Amarillo	347	197
Timms-Dietsch Oil Corp., Amarillo	2,543	2,631
Timms Robinson Oil Corp., Amarillo	694	690
Timms, L. W. Oil Corp., Amarillo	2,240	2,254
Thomson, F. L., San Antonio	3,557	4,091
The Texas Company, Houston	3,771,601	3,808,889
Texas Pacific Coal & Oil Co., Thurber	116,166	130,824
Texas Pacific Coal & Oil Co., Thurber	285,211	254,978
Texas Pacific Coal & Oil Co., Thurber	6,886	5,142
"Trapshooter" Rielly Oil & Roy. Co., San Antonio (9-30-30)	64,067	63,889
"Trapshooter" Reilly Oil & Roy Co., San Antonio (6-30-30)	26,267	23,868
Tex Cal Oil Company, Brownwood	4,643	4,492
Tilton, Elvin, et al, Houston	45,266	35,354
Texas Gas Company, Houston	396	336
Towns, M. K., Luling	10,811	9,730
Thomas, J. Elmer, Fort Worth	31	42
Turman, L. C. (12-31-30), Fort Worth	153,912	113,569
Turman, L. C. (9-30-30), Fort Worth	218,444	206,200
Unice & Carpenter, Houston	2,273	2,619
Underwood Drilling Co. (Erwin Lease), Wichita Falls	795	809
Underwood Drilling Co. (Perkins Lease), Wichita Falls	318	237
Underwood Drilling Co. (Underwood & Campbell Lease), Wichita Falls	559	624
Underwood Drilling Co. (Underwood & Consolidated Ward Lease), Wichita Falls	1,363	1,408
Underwood Drilling Co. (Ward A Lease), Wichita Falls	2,650	2,812
United Production Corporation, Houston	794,881	726,159
University Lease, Sec. 24, San Angelo	8,320	5,742
Union Oil Company of Nevada (12-31-30), Abilene	460	327
Union Oil Company of Nevada (9-30-30), Abilene	35	52
United Oil Corporation, Wichita Falls	7,485	6,465
Union Production Company, Inc., Rockdale	3,375	3,457
Union Oil & Mining Company, Tulsa, Okla.	5,714	5,885
Urban, O. J., et al, Ranger	599	691
Unity Oil Company, Beaumont	14,387	13,034
Upland Oil Co. Cady-Conner & Crenshaw, Pampa	13,229	11,978
United Producers Company, Wichita Falls	43,689	45,783
Upham Gas Company of Texas, The, Wichita Falls	1,307	1,855
Vitek, Paul, Tr., Fort Worth	30,870	20,763
Valerio, Inc., San Antonio	453	530
Vacuum Oil Company, Houston	29,472	30,746
Virginia Oil Ass'n, Inc., Fort Worth	3,320	2,754
Vigil Oil & Gas Company, Wichita Falls	7,107	6,013
Van Wormer, Frank E., Wichita Falls	1,064	923
Van Cleave Trust, Baltimore, Md.	465	470
Venmex Oil Co. of Texas, Wichita Falls	39,779	44,456
Wheelock, R. L., Receiver for Central Texas Refining Co., Corsicana	7,659	7,494
Williamson, R. C. (9-30-30), Fort Worth	3,289	4,695
Williamson, R. C. (6-30-30), Fort Worth	444	643
Williamson, R. C. (9-30-30), Fort Worth	667	965
Wright, H. L., Receiver for J. T. Stover et al (9-30-30), Mirando City	23,815	20,242
Wright, H. L., Receiver for J. T. Stover et al, (6-30-30), Mirando City	1,864	1,584
West, Mrs. Bessie M., Houston	1,430	1,645
Woods & Bennett, Humble	3,907	3,907
Wood, Benton, Lesh & McCall, Nocona	3,864	2,815
Washoma Petroleum Company (9-30-30), Enid, Okla.	30,531	32,772
Webb Oil Company, Humble	3,716	3,873
Whiteside, J. E., Brownwood	244	228
Westbrook, R. A., Production Account, Fort Worth	16,932	11,408
Wilder, Jack H., Rice	426	464
Woods, C. D. & C. C., Ranger	145	178
Webb, Luther, Receiver, Vernon	4,104	4,051
Witcher, Annie L., Guardian, Wichita Falls	3,141	3,576
Washoma Petroleum Company (12-31-30), Enid, Okla.	7,982	5,968
Watts, C. D., Moran	574	443
Wilbarger Oil Company, Wichita Falls	1,308	1,217
Wichita Production Company, Wichita Falls	9,009	9,780
Wilson-Broach Company, The, Beaumont	11,664	11,776
Wilson Drilling Company, Wichita Falls	12,585	14,291
World Oil Company, Inc., Fort Worth	8,884	6,319
Webb, Luther, Vernon	1,093	1,078
West Production Company, Houston	24,298	26,837
Why Not Oil Company, Mexia	4,694	5,192
Weiler, J. G. et al, Cross Plains	1,221	1,389
Wilson & Swain, Woodson	1,462	1,535
Webb, J. R., Corsicana	215	215
Webb, J. R. & J. H. Bryant, Corsicana	250	162
Wilson, W. I., Electra	931	1,066
Witcher, W. C., et al, Wichita Falls	492	542
Wills Oil Company, Rockdale	1,169	1,185
Westheimer & Daube, Ardmore, Okla.	30,980	24,932
Welch, Chas., Albany	664	660
Wo-Mac Oil Company, Wichita Falls	4,875	5,035
Woody, W. C., Wichita Falls	1,825	2,129
Wright, H. L., Receiver for J. T. Stover et al (12-31-30), Mirando City	23,036	18,071
Woodruff Development Co., Inc., Cleveland, Ohio	778	694
Weaver & Pois, Wichita Falls	1,741	1,839
West, J. H., Lemon Grove, Calif.	7,635	7,937
Weiler, H. J., Wichita Falls	242	174
Worth Oil Company, Wichita Falls	4,156	3,621
Wahpoo Oil Company, Rockdale	953	987
White & Duncan, Wichita Falls	5,080	5,362
Weekley Oil Corporation, Fort Worth	43,851	30,686
Watchorn, Mr. Robert, Oklahoma City, Okla.	1,915	1,755
Worth Petroleum Company, Fort Worth	4,871	5,285
West Texas Petroleum Corp., San Angelo	15,234	9,848
Wolf, D. L., Olney	4,963	4,269
Williams, John H., et al, Dallas	3,876	4,314
Whitfield, B. V., Oklahoma City, Okla.	345	369
White, James H., Wichita Falls	6,917	6,170
Wheelock & Collins, Corsicana	8,301	9,168
Wallace, Dr. Chas. Wm. & wife, Wichita Falls	47,645	53,889
Warner-Quinlan Company of Texas, Houston	187,520	135,984
Woodburn Oil Corporation, Dallas	2,843	3,077
Wise & Porterfield, Graham	1,868	1,974
Wilson, Lee Estate, et al, Wichita Falls	2,937	3,143
Woodley Petroleum Company, Shreveport, La.	51,827	59,715
Whitehill Oil Corporation, The, Tulsa, Okla.	4,015	4,526
Woods, C. D. & C. C., Ranger	520	524
Walker, A. C., Albany	6,097	4,721
Ward Oil Corporation, Ardmore, Okla.	147,692	82,771
Wills, O. C., Burkburnett	1,661	1,613
Weldon Oil Company, Saratoga	10,733	8,833
Whaley Company, Inc., Fort Worth	4,387	4,742
Wallace & Emrick, Minerva	397	436
Wallace & Davis, Minerva	521	519
Wise & Jackson, Sapulpa, Okla.	4,970	5,261
Witherspoon Oil Company & C. L. Witherspoon, San Antonio	27,871	23,360
Waggoner, E. P. & C. F. Kolp, Electra	3,052	3,204
Wolfe, A. T., Wichita Falls	3,772	4,313
Wentz, L. H., Oil Division, Ponca City, Okla.	2,687	1,693
Walton, Blair & Schlaffke, Electra	4,234	4,542
West, C. K., Breckenridge	3,435	3,689
Wolf, D. L., Olney	4,963	4,269
Wilcox, H. F., Oil & Gas Co., Tulsa, Okla.	244,420	245,284
Woods, C. D. & C. C. (9-30-30), Ranger	136	187
Wilkins, L. A., Burkburnett	5,507	5,727
Yount-Lee Oil Company, Beaumont	1,539,716	1,484,179
York Petroleum Company, Stamford	56	52
Yingling, S. C., for Southern Oil Corporation of America, Winfield, Kans.	7,482	3,741
Zadie Belle Oil Company, Fort Worth	461	493
Zenity Oil Production Company, Wichita Falls (9-30-30)	27,929	31,850
Rhett-Wilder et al, Rockdale	432	292
Barkley & Meadows (12-31-30), Wichita Falls	70,688	67,182
Barkley & Meadows (9-30-30), Wichita Falls	74,787	97,073
Booth, C. H., Trustee "A" Lease, Taylor	3,261	2,119
Booth, C. H., Trustee, "B" Lease, Taylor	3,616	2,350
Nunn-Stubblefield Oil Co. (12-31-30), Amarillo	19,062	18,258
Nunn-Stubblefield Oil Co. (9-30-30), Amarillo	16,953	22,581
Pansota Oil Company (12-31-30), Amarillo	3,783	3,007
Pansota Oil Company (9-30-30), Amarillo	2,734	2,049
Winrod Oil Company, Amarillo	1,598	1,595
	70,681,490	60,641,726

OKLAHOMA QUARTERLY PRODUCTION REPORT FOR FOURTH QUARTER 1930

Following is a list of companies and individuals reporting to the Oklahoma Corporation Commission on Gross Production. This list gives those companies and individuals which reported production valued at more than $5,000. Royalty returns have purposely been omitted from the list to help avoid confusion. (†) Indicates values shown includes gas values also.

Name and Address—	Barrels	Amount
Amerada Petroleum Corporation, Tulsa	619,954	$722,584
Arthur Oil Company, Sistersville, West Va.	8,937	9,126
Atlantic Oil Producing Co., Dallas, Texas	159,722	173,989
Anderson-Prichard Oil Co., Okla. City, By T. B. Slick Co.	21,131	25,422
Argo Oil Company, Denver, Colorado	27,975	33,023
Wm. H. Atkinson (By T. B. Slick Co.), Okla. City	165,071	183,296
American Maracaibo, N. Y. City	5,122	6,858
Anderson-Prichard Oil Corp., Okla. City	127,493	138,165
Anderson-Prichard Production Corp.	49,048	52,452
Armor Oil & Gas Company, Duncan	.....	9,652
Alma Petroleum Company, Oklahoma City	850	804
S. W. Anthony, Mounds	.....	8,772
American Oil & Refg. Co., Okla. City	15,270	16,264
Barnsdall Oil Company, Tulsa	134,363	131,791
Barnsdall Oil Company, Tulsa	596,078	638,228
Blackwell Oil & Gas, Cushing	.....	248,319
Brown-Barrett Oil Co., (By Fed. Natl. Bk. Trustee)	37,737	40,890
Berry Petroleum Company, Tulsa	7,074	7,170
Benedum-Trees Oil Company, Pittsburgh, Pa.	73,381	86,281
British-American Oil Prod. Company., Tulsa	102,435	109,857
Buell-Herndon & Company, Inc., Tulsa	17,297	21,139
Bissett-Lytle and Gray No. 2, Tulsa	5,711	5,273
Bissett-Lytle and Gray No. 1, Tulsa	7,919	7,665
Baker & Strawn, Tulsa	6,570	†6,323
Babcock Brothers, Denison, Texas	5,777	7,146
J. B. Brady, Rock Island, Ill.	.....	5,376
Bryan Petroleum Company, Tulsa	6,868	7,931
Bilbo Oil Corporation, Madill	14,044	18,464
Bay State Oil & Gas Co., K. C., Mo.	7,993	9,339
Bay State Oil & Gas Co., Kansas City, Mo.	2,551	2,827
Bell Oil & Gas Company, Tulsa	5,110	5,551
R. H. Burns, paid by Liberty Nat'l Bank, Oklahoma City	25,762	28,998
O. V. Beck, Nocona, Texas	38,170	42,224
Bob Bradshaw, trustee, Tulsa	17,742	18,909
Braden & Moore, Tulsa	4,336	4,504
Braden Company, Tulsa	.....	668
Baldwin & Sutton, Walters	6,842	6,735
E. M. Boring, Oklahoma City	7,467	7,807
Geo. S. Bole, Tulsa	6,323	6,670
H. A. Born, Seminole	.....	7,098
E. G. Bradley, Wichita Kansas	11,603	13,071
Bi-State Oil & Gas, Wichita Falls, Texas	5,281	4,394
Barbara Oil Company, Chicago, Ill.	4,773	4,613
Bullock Oil Company, Okla. City	87,083	104,138
Burke-Greis Oil Company, Tulsa	95,210	106,419
Champlin Refining, Enid	136,520	146,260
Coline Oil Company, Okla. City	220,883	235,327
Carter Oil Company, Tulsa	1,811,992	1,926,218
J. S. Cosden, Inc., Fort Worth	36,944	44,237
Receivers for J. S. Cosden, Inc. of Okla.	35,907	33,453
J. S. Cosden, Inc., Okla.	102,826	139,367
Central Petroleum Company, Tulsa	5,912	5,969
J. E. Crosbie, Inc., Tulsa	42,410	46,376
Consolidated Gas Utilities Company, Ponca	.....	34,637
Continental Oil & Refg. Co., Indep., Kansas	7,527	6,861
Champlin & Bass, Inc., Holdenville	4,413	4,952
Comar Oil Company, St. Louis	369,313	450,543
Creo Oil Company, Tulsa	6,403	6,021
Citizens Nat'l Bank, Chickasha	.....	11,278
J. D. Campbell, Seminole	.....	12,383
Herman D. Cornell, Trustee, Los Angeles, Cal.	2,969	4,099
J. G. Catlett, Tulsa	.....	5,330
Anna S. Cook, Muskogee	.....	6,977
Cudahy Oil Company, Cleveland, Ohio	10,933	9,778
Chatham Oil Company, Tulsa	24,028	26,649
Clark P. Cowden, Duncan	.....	8,122
S. C. Canary, Tulsa	5,520	5,213
W. S. Critchlow, Ardmore	.....	6,865
Edw. B. Cox & Jake L. Hamon, Ardmore	.....	8,226
Jennie Clauer, Galena, Ill.	.....	6,791
Continental Oil Company, Ponca	437,716	500,523
Darby Petroleum Corporation, Tulsa	276,041	298,312
Devonian Oil Company, Tulsa	94,428	108,300
Dixie Oil Company, Tulsa	447,269	530,593
Delaware Consolidated Oil Company, Tulsa	49,093	44,232
Dunmar Oil Company, Duncan	12,674	13,255
Darby Lynde Company, Tulsa	80,476	92,826
Delmar Oil Company, Bartlesville	13,458	14,385
Deep Rock Oil & Refg., Tulsa	362,899	405,920
Deep Rock Oil & Refg. (Suspense), Tulsa	.....	5,146
Denver Prod. & Refg. Co., Okla. City	39,613	48,605
Duncan Wichita Falls Pipe Line Co., Wichita Falls, Texas	11,197	10,855
R. E. Downing, Inc., Tulsa	.....	5,183
J. J. Deaner, Okmulgee	5,994	6,668
Delaware Consolidated Oil Co., Tulsa	49,093	44,232
John Droppleman, Wewoka	.....	33,879
Empire Oil & Refg. Co., Bartlesville	342,781	366,942
Empire Oil & Refg. Co., Bartlesville (Suspense)	.....	86,058
Elm Oil Company, Tulsa	10,181	10,466
Elm Oil Company, Tulsa	728	726
Eagle Picher Mining Co., Henryetta	2,702	†7,641
Earlsboro Production Trust No. 2, Tulsa	11,735	12,725
Wirt Franklin, Ardmore	146,584	166,458
Wirt Franklin, paid by Liberty Nat'l Bank	3,109	†3,381
Wirt Franklin Petr. Corp., Ardmore	882,865	926,460
Finance Oil Company, Gowanda, N. Y.	10,061	10,230
Foster Petr. Corp., Bartlesville	16,818	19,413
James F. Foster, Anthony, N. M.	.....	2,352
D. W. Franchot & Co., Tulsa	24,080	24,910
Fleming & Kimbell, Ft. Worth Texas	4,657	5,309
Fern Oil & Gas, Yale	4,935	5,563
Farlyn Oil Company, Houston, Texas	11,111	10,974
Foster & Davis, Inc., Bartlesville	6,536	6,740

Production and Valuation of 10 Leading Oklahoma Producing Companies for Fourth Quarter, 1930

Company—	Fourth Quarter 1930 Barrels	Fourth Quarter 1930 Value	Third Quarter 1930 Barrels	Third Quarter 1930 Value	Second Quarter 1930 Barrels	Second Quarter 1930 Value
Indian Territory Illuminating Co.	3,036,487	$3,381,855	3,388,611	$4,630,546	4,700,165	$6,290,945
Sinclair Oil & Gas Company	2,749,093	3,127,999	3,462,849	4,725,368	3,324,222	4,513,274
Magnolia Petroleum Company	2,401,790	2,360,799	2,634,156	3,259,285	3,370,314	6,295,257
Prairie Oil & Gas Company	2,300,396	2,583,673	2,569,573	3,514,131	3,148,779	4,261,242
Gypsy Oil Company	1,832,703	2,074,510	1,927,086	2,614,214	2,571,160	3,478,401
Carter Oil Company	1,811,992	1,926,218	2,106,297	2,716,306	2,688,807	3,502,497
Mid-Continent Pet. Corporation	1,476,481	1,612,196	1,599,992	2,128,996	1,499,895	2,004,678
Wirt Franklin Pet. Corporation	882,865	926,460	883,280	1,131,746	999,458	1,279,482
The Texas Company	841,846	896,201	983,938	1,285,332	1,124,703	1,478,722
Pure Oil Company	804,911	881,258	904,615	1,212,117	1,159,742	1,563,014
Total	.....	.....	20,460,397	$27,218,041	24,730,891	$32,915,963
*Total All Companies	60,151,200	.....	52,630,200	*.....	60,219,300	.....

*A. P. I. Estimates.

Name and Address—	Barrels	Amount
F. A. Gillespie & Sons, Tulsa	15,522	13,491
Gibson-Zahniser Oil Corp., Tulsa	1,534	1,776
R. F. Garland & Co., Tulsa	.....	18,098
J. Wood Glass, Nowata	5,705	5,651
H. B. Getner, Tulsa	.....	15,618
Gypsy Oil Company, Tulsa	1,714,870	1,934,539
Gypsy Oil Company, Tulsa	127,833	139,971
Guysy Oil Company, (Suspense), Tulsa	.....	170
Gypsy Oil Company, (Suspense), Tulsa	....	13,055
Gypsy Oil Company, (Suspense), Tulsa	.....	61,386
Gled Oil Company, Tulsa	31,526	34,621
Grimes & Gillespie, Tulsa	10,152	10,694
Galt-Brown Company, Ardmore	8,258	8,235
Glass & Harmon, Nowata	9,988	10,321
Gilcrease Oil Company, Tulsa	21,146	17,142
Gilmer Oil Company, Ardmore	29,432	26,185
Gates Oil Company, Ardmore	9,167	8,106
H. B. Getner, Haskell	.....	15,618
John B. Grieves, Terlton	.....	9,827
Gardner Petroleum Company, Tulsa	5,358	6,260
Guaranty Trust Company of N. Y. City	.....	10,124
Walter H. Gant & Knox L. Garvin, Ardmore	.....	8,204
Galer Oil Company, Tulsa	.....	9,118
J. A. Hull Company, Tulsa	29,084	33,479
W. T. Hales, Oklahoma City	32,025	32,394
Hall & Briscoe, Inc., Okla. City	150,197	162,929
Home Gas Company of Cushing, Cushing	8,919	15,717
Harris & Hays Company, Okmulgee	5,350	6,615
Harland Oil Company, Walco	14,880	12,962
Samuel W. Hayes, Okla. City	17,976	21,423
Elizabeth Crockett Hayes, Okla. City	11,018	13,330
Highway Refg. Corp., Tulsa	21,245	24,797
Houston Oil Co. of Texas, Houston, Texas	27,268	30,213
Hewitt Oil & Gas Company, Ardmore	.....	10,210
J. E. Hall, Holdenville	.....	9,029
E. D. Hall, Atty. for Thos. Ryan, Wetumka	.....	4,095
Hay & McClure, Inc., Peoria, Ill.	7,768	9,032
Home Stake Royalty Corp., Tulsa	.....	1,867
Henderson Oil Co., Marietta, Ohio	6,331	6,091
Hickman & Heydrick, Wichita Falls, Texas	5,804	†6,438
C. C. Harmon, Nowata	.....	11,745
Anna W. Hallenbach, Shelbyville, Ky.	.....	5,754
Frank Haskell, agent, Tulsa	9,218	8,356
A. D. Harlan, agent, Hawarden, Iowa	4,228	4,420
Ed. S. Holmans, Inc., Oklahoma City	9,012	14,149
Indian Territory Illuminating Co., Bartlesville	3,036,487	3,381,855
Indiana Oil & Gas Company, Tulsa	22,896	23,505
Indian Royalty Company, Okla. City	8,186	9,561
Iron Mountain Oil Company, Tulsa	8,620	†11,104
Imo Oil & Gas, Covington	.....	5,581
L. B. Jackson, Tulsa	.....	9,252
Leo Jacobs, St. Louis, Mo.	6,666	5,808
C. C. Julian Royalty Co., Okla. City	15,060	14,641
Johnson Oil Refg. Co., Chicago, Ill.	22,101	24,940
E. W. & F. D. Jones Drilling Co., Okla. City	.....	24,687
R. C. Jones & Co., Inc., Cushing	....	7,648
Keener Oil & Gas Co., Tulsa	32,273	30,876
Kay Oil Company, Blackwell	12,955	15,273
Kewanee Oil & Gas, Titusville, Pa.	128,086	150,956
Kay & Kiowa Oil Co., Tulsa	3,847	4,156
Kingwood Oil Company, Okmulgee	22,890	26,182
Kreola-Colcord Commerce Co., Ardmore	7,027	5,694
Chas. E. Knox & Company, Enid	639	†853
Chas. E. Knox & Company, Enid	15,600	†16,433
Laurel Oil & Gas Co., Philadelphia, Pa.	49,457	53,770
Louisiana Oil Refg. Co., Shreveport, La.	54,756	45,924
Lawson Petroleum Company, Tulsa	4,565	4,938
Lima Oil & Gas, Bartlesville	4,655	4,981
Little Nick Oil Company, Chickasha	.....	22,371
B. A. & T. E. Laselle, Ada	.....	32,562
B. A. & T. E. Laselle, Ada	.....	7,248
L. T. C. Oil & Gas Royalty Trust, Okla. City	.....	2,682
Lesh & McCall et al, Nocona, Texas	7,002	4,820
Link Oil Co., Tulsa	19,620	20,798
C. L. McMahan and C. L. McMahan, Inc, Tulsa	56,822	62,014
McMan Oil & Gas Company, Tulsa	75,904	87,114
McGraw Oil Company, Tulsa	.....	14,828
Magnolia Petroleum Corp., Dallas, Texas	2,401,790	2,360,799
Magnolia Petroleum Corp., Dallas, Tex. (Suspense)	.....	10,320
Magnolia Petroleum Corp., Dallas, Tex. (Protest)	.....	43,916
Mid-Continent Petroleum Corp, Tulsa	1,476,481	1,612,196
Mid-Kansas Oil & Gas, Findley, Ohio	401,338	410,776
Midco Oil Corp., Tulsa	16,333	16,885
Margay Oil Corporation, Tulsa	36,077	40,223
Mul-Berry Oil Company, Cushing	.....	104,664
Murphy Oil Co. of Penn. Phil. Pa.	12,959	12,335
Mudge Oil Company, Pittsburgh, Pa.	17,535	10,561
Maud Oil & Gas Co., Okla. City	4,299	4,993
Mullendore Trust Company, Cleveland, Okla.	....	15,603
J. H. Markham, Jr., Tulsa	14,582	15,493
Clint Moore, Estate, Tulsa	10,556	11,363
Marileen Oil & Gas Company, Blackwell	4,961	5,786
Madden & Madden, Lexington, Ky.	6,260	6,983
Minnehoma Oil & Gas, Tulsa	153,274	175,271
F. W. Merrick, Inc., Ardmore	.....	35,920
Ward S. Merrick, Ardmore	.....	4,089
F. D. Misener, Tulsa	6,506	5,934
Malernee Oil Company, Okla. City	4,850	5,278
National Refg. Company, Cleveland, Ohio	12,983	†15,604
National Oil & Dev. Company, Tulsa	9,879	9,790
National Union Oil & Gas Co., Blackwell	4,216	5,247
Norwood Oil Co., Tulsa	6,790	6,468
Noble-Olson Drilling Company, Tulsa	24,261	21,186
W. C. Norris, Tulsa	.....	6,773
G. A. Nichols, No. 4, Oklahoma City	.....	3,267
Nester Oil Company, Alex.	.....	2,224
Osage Gas Producing Co., Indep., Kansas	348	332
Ona Oil Company, Blackwell	.....	13,194
Oklahoma Company, Tulsa	65,521	67,986
Olean Petroleum Company, Bristow	8,569	10,305
Okla. Public Service Corp., Cedar Rapids, Iowa	4,950	†14,615
O. O. Owens, Tulsa	3,055	3,897
O. O. Owens, Tulsa	.....	822
Oils Incorporated Co., Unit Holders of Ross No. 1 Oklahoma City	.....	30,298
Oils Incorporated, Oklahoma City	76,519	65,439
A. G. Oliphant, Tulsa	5,730	6,212
Supt. Osage Indian Agency, Pawhuska	.....	666,891
Prairie Oil & Gas Co., Indep., Kansas	2,300,396	2,583,673
Prairie Oil & Gas Co., Trustee, Indep., Kansas	3,018	3,008
Phillips Petroleum Company, Bartlesville	859,812	949,536
Phillips Petroleum Company., for others	.....	13,405
Pure Oil Company, Chicago, Ill.	804,911	881,258
Producers & Refg. Corp., Indep., Kansas	174,710	158,786
Producers Oil Company, Tulsa	66,857	75,521
Papoose Oil Company, Tulsa	39,530	†48,246
Papoose Oil Company, Tulsa	1,458	1,498
W. B. Pine, Okmulgee	14,158	15,169
W. B. Pine & Phillips Petroleum, Okmulgee	1,134	1,269
W. B. Pine, Okmulgee	40,781	41,608
W. B. Pine, Okmulgee	10,805	15,476
W. B. Pine, Okmulgee	13,440	18,612
W. B. Pine, Okmulgee	13,832	21,194
Petroleum Company & M. H. Mosier, Tulsa	11,091	11,387
Petroleum Company, Tulsa	4,470	4,628
Paraffine Oil Company, Houston, Texas	6,909	6,439
Plains Petroleum Corporation, Oklahoma City	5,320	5,343
Paragon Oil Company, Tulsa	4,641	4,799
Pauline Oil & Gas Company, Oklahoma City	.....	4,963
W. B. Pine, Okmulgee	14,688	14,779
Perkins & Cullum, Wichita Falls, Texas	8,878	8,217
Pioneer Petroleum Company, Tulsa	8,698	8,063
Forrest Parrott, Trustee, Oklahoma City	5,315	5,337
Pueblo Petroleum Company, Tulsa	.....	7,945
Hilton Phillips, Shawnee	.....	39,705
Plymouth Drilling Company, Tulsa	7,007	7,114
Pandem Oil Corp., Wichita Falls, Texas	5,261	6,060
Geo. L. Pace, Wichita Falls, Texas	64,590	53,713
Phoenix Oil Company, Pittsburgh, Pa.	.....	12,492
Penn-Ohio Gas Company, Pittsburgh, Pa.	8,638	9,100
Pouder & Pomeroy, Tulsa	15,305	16,719
L. E. Patterson, Oklahoma City	2,485	2,556
Panther Oil & Gas Company, Oklahoma City	5,456	6,229
Ramsey Petroleum Corp., Oklahoma City	70,507	†61,450
Reliance Oil Co. of Okla., Houston, Texas	7,875	7,532
Rex Oil & Gas Co. & Pyramid Oil Co., Winchester, Kentucky	10,030	9,428
Regal Oil & Gas, Tulsa	15,680	18,584
Reynolds & Unruh, Wichita, Kansas	20,710	25,901
Jake Rutz Oil Company, Morris	7,210	7,700
E. L. Robinson, Tulsa	8,435	8,511
B. H. Robertson, Nowata	4,816	5,024
Reiter-Foster Oil Corp., Tulsa	25,598	25,500
D. A. Richardson, Oklahoma City	15,120	17,551
Reynolds Oil & Royalty Company, Okla. City	6,925	7,822
Riverland Company, Tulsa	5,666	6,791
Reserve Petroleum Company, Tulsa	16,989	17,841
Rockland Oil Company, Ardmore	21,886	18,624
Red Bank Oil Company, Tulsa	31,596	32,696
Superior Oil Corp., Tulsa	105,345	112,260
Sinclair Oil & Gas, Tulsa	2,749,093	3,127,999
Sinclair Oil & Gas, (Suspense)	.....	12,490
Skelton-Moore Oil Company, Bartlesville	5,127	5,169
Estate of Thos. B. Slick, Okla. City	480,331	551,729
Stanoline Crude Oil Purchasing Co., (Suspense)	.....	86,963
John P. Snyder, Minneopolis, Minn.	.....	2,299
J. C. Shaffer, Inc., Oklahoma City	.....	25,020
C. B. Shaffer, Chicago	10,043	9,256
Southwest Gas Utilities Corp. of Okla., Ada	.....	6,233
N. Bert Smith, Royalty Trust, Oklahoma City	.....	43,810
G. J. Smith, Tulsa	.....	30,775
Skelly Oil Company, Tulsa	606,199	658,380
Schermerhorn Oil Company, Tulsa	2,122	8,497
Sunray Oil Company, Tulsa	154,211	139,278
Shasta Oil Company, Wichita Falls, Texas	94,903	82,071
Silurian Oil Company, St. Louis, Mo.	95,794	96,278
Simpson-Fell Oil Company, Ardmore	14,383	13,908
Sturm Drilling Company, Ardmore	8,354	8,591
Savoy Oil Company, Tulsa	5,724	5,164
Estate of C. R. Smith, Ardmore	2,328	2,242
Chas. R. Smith, Jr., Ardmore	3,873	3,719
Maris S. Smith, Ardmore	4,883	4,688
Sterling Trust Corp., Trustee for Phoenix Royalties Syndicate, Toronto, Canada	.....	1,720
Shoreline Oil & Gas Co.,	19,487	24,543
Geo. W. Snedden, Tulsa	40,400	49,006
Schermerhorn-Ardmore Co., Minneapolis, Minn.	61,928	†58,623
J. B. Schermerhorn, Inc., Minneapolis, Minn.	45,647	45,792

Name and Address—	Barrels	Amount
Sun Set Oil & Gas Company, Freewater, Oregon..	.....	6,592
Slab Oil Company, Ardmore	7,669	9,022
Sands Petroleum Corporation, Tulsa	8,399	10,010
Selby Oil & Gas Company, Tulsa.....	20,994	19,351
Sheridan Oil Company, Tulsa	9,811	9,388
Harry Stekoll, Tulsa.....	18,030	21,085
M. B. Shufflin, Coffeyville, Kansas.....	.....	9,935
Simms Oil Company, Dallas, Texas.....	45,429	52,500
Snowden & McSweeney, N. Y. City.....	41,007	41,623
J. L. Selby, Muskogee	8,222	8,525
Shell Petroleum Corp., St. Louis, Mo.....609,428		670,383
Texas Company, Production Dept., Tulsa.....841,846		896,201
Tidal Oil Company, Tulsa.....397,399		394,489
Tidal Oil Company, Tulsa	6,952	6,053
Treveyn Oil Company, Duncan	.....	25,969
C. G. Tibbens, Tulsa	29,181	43,642
H. E. Turner, Oklahoma City.....	.....	15,844
Texas Pacific Coal & Oil Co., Thurber, Texas.....	39,759	27,036
Twin State Oil Company, Tulsa.....431,239		309,482
Thlocco Oil Company, Tulsa.....	7,993	9,980
Turman Oil Company, Tulsa.....230,369		250,613
Tulsa Oil Company, Tulsa.....	.....	8,442
United Producing Co., Inc., Charleston, W. Va...	1,956	2,348
Valley Osage Oil Company, Tulsa.....	15,448	15,179
Venmex Oil Company, Wichita Falls, Texas.....	24,642	22,882
Vacuum Oil Company, Houston, Texas.....	97,208	119,643
Vernon Oil & Gas, Blackwell	.....	6,056
H. F. Wilcox Oil & Gas, Tulsa 285,127		317,454
H. F. Wilcox Oil & Gas, Tulsa, (Suspense).....	.....	2,010
Wentz Oil Corp., Ponca 130,147		153,607
Wentz Oil Corporation, Ponca.....	617	747
Wise & Jackson, Sapulpa	.....	4,778
Walsh Oil Company, Tulsa	5,200	5,061
F. E. Watkins Estate, Waurika	3,347	2,713
Wiser Oil Company, Sistersville, W. Va.	85,838	83,300
Warner-Caldwell Oil Co., Titusville, Pa.....	30,967	30,383
Wrightsmith Oil Co., Oklahoma City.....	19,656	21,618
Winona Oil Co., of Delaware, Tulsa.....	33,362	35,379
White Hill Oil Corporation, Tulsa.....	15,729	15,823
J. H. Wright, Estate, Sapulpa	14,796	16,011
Wood Oil Company, Tulsa	14,389	17,203
Westheimer & Daube, Ardmore.....	85,815	84,071
Wargaret S. Weeks, Ardmore.....	3,873	3,719
Wolverine Petroleum Company, St. Louis, Mo.....141,597		137,972
Wellsville Oil Company, Wellsville, N. Y.....	8,157	8,109
Westland Oil Corporation, Tulsa.....	13,975	15,475
V. E. Wallace, Okmulgee	.....	5,479
Watchorn Oil & Gas, Oklahoma City.....	7,398	7,616
Howard J. Whitehill & H. C. Weible, Tulsa.....	12,347	12,296
Winkler & McQueen, Duncan	.....	9,608
Estate of John Thos. Welsh, N. Y. City, by Jack T. Welsh	.....	3,238
L. W. Zimmerman, Chicago, Ill.	17,956	†14,067

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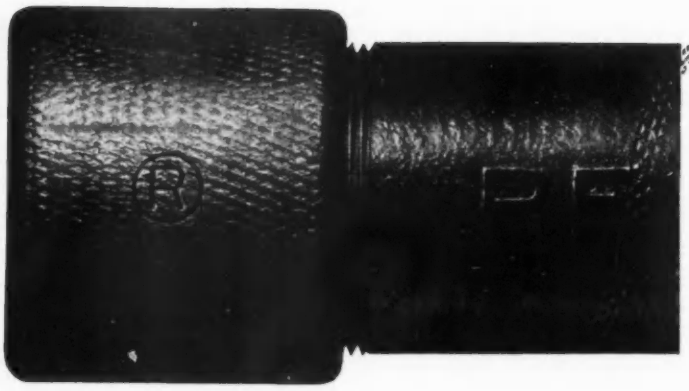

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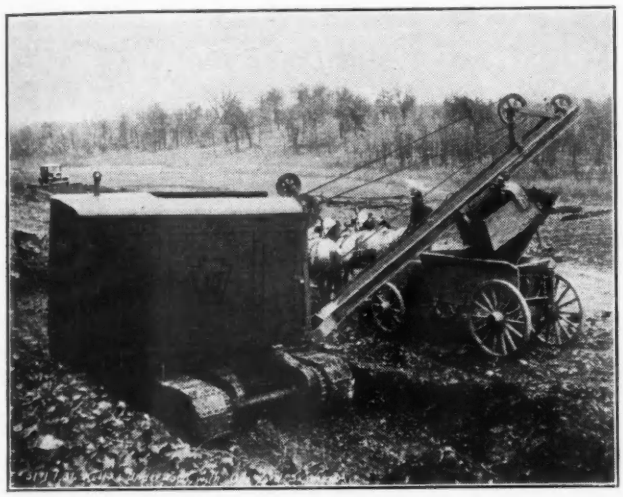
Convertible Power Shovel

Keystone Driller Company

Keystone Driller Company, Beaver Falls, Pennsylvania, announces the new 1931 Model 17 convertible power shovel for excavation and ditching work.

This machine is full revolving and crawler mounted, and equipped with all standard excavating equipment. It weighs 28 tons complete with skimmer, pullscoop, clamshell, and 30 tons with the standard bank shovel.

The one-yard bucket gives the machine a capacity of over 800 cubic yards per 10-hour day.



Keystone Convertible Shovel

A full range of pullscoop buckets from 24 to 72-inch is available on this unit. Sizes from 24 to 48 inches are standard and have capacities of from one-half yard to one yard over the range of sizes mentioned. Three other size buckets are available, 54-inch, 60-inch and 72-inch. The shovel has a digging depth capacity of 20 feet and an extreme depth reach of 24 feet and an extreme reach at the ground level of 25 feet six inches from the center pin. Dumping height with the ditcher bucket is 11 feet. Dumping clearance with the skimmer bucket is 15 feet.

The characteristic of the design is that the boom and digging buckets for skimmer-pullscoop operation have been made light. The boom weighs 2500 pounds and the one yard skimmer or 48-inch ditcher with attachments about the same. Thus the dead load on the front of the machine is about 5000 pounds. This makes it possible with a moderate amount of counterweight to keep the rear end clearance or tail swing of the machine within the limit of eight feet six inches from the center pin. It also greatly increases the possible pay load and produces a one yard shovel weighing 28 tons.

The power unit is a Climax Blue Streak engine developing 81 horsepower at 960 R.P.M. Traction speed is 75 R.P.M. Rotation speed is 5¼ R.P.M. Gasoline consumption is about 45 gallons per 10-hour day, and the yardage output 800 cubic yards per day in ordinary formations with the regular buckets. The Model 17 is equipped with slipping friction drums making it possible to apply any desirable line speed suited to the conditions in which the bucket may be operated.

New High Speed Diesel

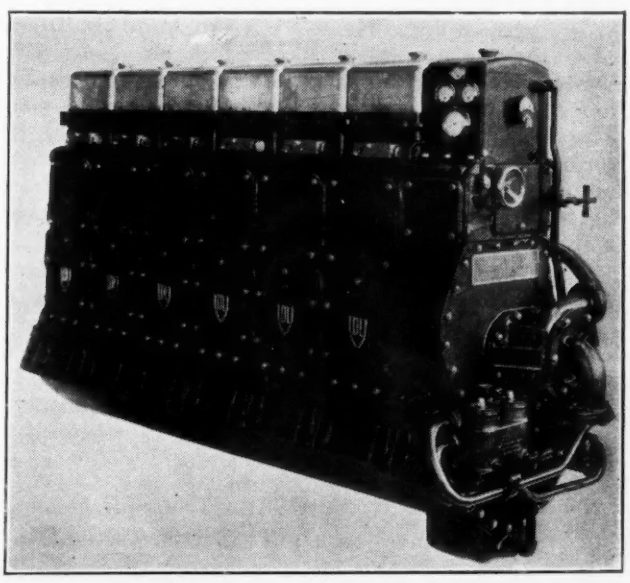
I. P. Morris & De La Vergne, Inc.

I. P. Morris & De La Vergne, Inc., Richmond and Norris Streets, Philadelphia, have recently published a four page folder illustrating and describing the new De La Vergne high speed Diesel, which is now on the market.

The engine is designed and constructed for 750 revolutions per minute. It has many applications, and bedplates, power take-offs, reverse gears, flywheels, clutches and radiator cooling are available as required. It may be run at any constant speed from 300 R.P.M. up to the rated speed of 750 R.P.M. It is built in three to eight cylinder units.

This new Diesel is equipped with aluminum pistons, nine-inch bore and 11-inch stroke, has a fuel transfer pump, solid fuel injection, two fuel oil filters in series, with a dry sump system of lubrication. It has a nickel cast iron removable liner, Robert Bosch fuel injection valves and Robert Bosch individual fuel pumps. It is equipped with Zenith duplex lubricating oil filter, a Schutte-Koerting lubricating oil cooler and Schutte-Koerting duplex lubricating oil pump, and is equipped with a centrifugal or reciprocating water pump as desired. It has a four cycle, two exhaust and two intake valves per cylinder, and a Hans Renold silent roller chain for camshaft drive and pumps.

Complete details on this new Diesel will be furnished on request to the company.



Model V H De La Vergne Diesel Engine

Restricted Circulation

. . . An Explanation of a POLICY

The circulation of The Oil Weekly is restricted to those people who are actually engaged in the oil and gas production and pipe line business and those people engaged in the manufacture and distribution of oil country supplies. A person subscribing to The Oil Weekly must so classify himself before the subscription is accepted.

This is a policy of many years standing. It is intended to restrict the subscription list of The Oil Weekly to people actually engaged in the oil business and is meant as no reflection on people who may be "interested" in the oil industry but not actually engaged.

For purposes of classification we classify the person dealing in leases, royalty, royalty owners, and owners of stock in oil companies as *not* being actually in the oil business, although many of them doubtless would be inclined to contradict us as to whether or not they are engaged in the oil business. Of course their money is as good as anybody else's money, their occupation is perfectly legitimate so far as we are concerned and we wish them well in their business—but we cannot and do not accept such subscriptions. The minute such a person becomes employed by a drilling, producing or pipe line company, or starts to drill a well or build a line, we are more than glad to have his subscription.

"Now why such a restriction policy?" some will ask.

The cost of delivering a year's subscription to The Oil Weekly is naturally a great deal more than the subscription price. This is true of all papers. The advertiser who is offering his products for sale through The Oil Weekly makes up the difference because he wants to reach *oil men* with the message on his equipment. Five or ten thousand additional subscriptions among owners of stock, holders of royalty, or dealers in leases—excellent men though they might be—would mean no additional prospective purchasers of the advertiser's material, but would mean a bigger advertising cost to the manufacturer. Therefore we restrict our subscribers, to the best of our ability, to people actually engaged in the oil business.

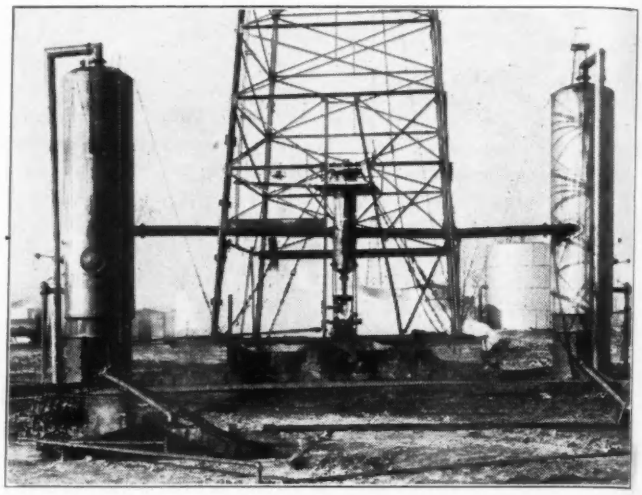
A limited number of copies each week are placed for sale on news-stands, for the benefit of the oil man who is away from the place where his own copy goes. Of course anybody can buy a copy on a news-stand. We have no control over that, but copies sold on news-stands are in the nature of "service copies" rather than being considered by us as an integral part of our circulation.

R. L. DUDLEY, *Publisher*,
THE OIL WEEKLY.

"Cushion Drum"

Black, Sivalls & Bryson, Inc.

Black, Sivalls & Bryson, Inc., of Bartlesville, Oklahoma, has introduced a new cushion drum for use on the improved American oil and gas separator of the American Tank & Equipment Company of Oklahoma City, a subsidiary.



Cushion Drum Installed

This cushion drum, which is 30 inches in diameter and 15 feet high, sits immediately over the well head. It is anchored to the casing and to the derrick. The purpose of the cushion drum is to eliminate the risk of allowing a well to get out of control, as in the case of the Oklahoma City field where wells produce a large volume of oil and gas. This cushion drum was devised particularly for wells in the Oklahoma City field where severe sand conditions are faced in high pressure wells.

It has been designed to permit the wells to flow to maximum capacity without cutting out control equipment. A choke of any size may be inserted. Chokes in various sizes from four-inch to one-half-inch are furnished by Black, Sivalls & Bryson, Inc.

The oil, gas and sand flows from the cushion drum into a specially designed sand hopper separator. The sand is taken out of the separator through an outlet in the cone bottom. The oil level is controlled by the B.S.&B. inside float. The large volume of gas is taken out of the top of the separator through the gas outlet which is at the top of the separator.

The equipment complies with the ordinances enforced at Oklahoma City covering the bringing in and operation of oil wells within the city limits.

Complete detailed features of this new cushion drum may be had by writing the company at Bartlesville, or to branch representatives.

American Iron & Machine Works Company is establishing a shop at Kilgore, Texas, to serve the East Texas oil field. The shop will be equipped and capable of giving complete service. The machine shop at Maud, Oklahoma, will be discontinued.

Merco Nordstrom Valve Company announces removal of its Los Angeles office, formerly at 556 South San Pedro Street, to new and larger quarters at 1709 West Eighth Street. The move, according to H. Boezinger, manager for Southern California, was necessitated by a need for a more central location and additional space. Enlarged warehouse facilities will also be maintained.

Manufacturer and Supply Dealer Notes

▼ ▼ ▼

Kerotest Manufacturing Company, Pittsburgh, has recently published a 104-page, two-color catalog which presents the valves and fittings of this company in elaborate form. The inside front cover is devoted to an index of equipment cataloged, divided in equipment classifications as valves, fittings for Christmas trees, fittings for hot oil and steam, steel castings, and miscellaneous. Other contents in the catalog are listed under "Inspection and Test" or under "Dimensions." The catalog is fully descriptive of all Kerotest products, which are shown in pictures, including wash drawings, line drawings and photographs taken of field installations. A section of the book is devoted to Kerotest shops, and the reader is taken on a trip through the plant in a pictorial layout. The method of presentation of the various items of Kerotest equipment makes it easy for the reader to get the complete layout at a glance. A valve, for example, is pictured on a left-hand page, with specifications in tabular form below, while on the opposite page a detailed drawing from two or more angles is given, with a table giving dimensions below. Several pages in the back of the catalog are devoted to giving detailed drawings of Kerotest Christmas tree hook-ups. A page is devoted to showing the method of packing Kerotest equipment for export. The manufacturers will gladly supply a copy of this catalog to interested companies.

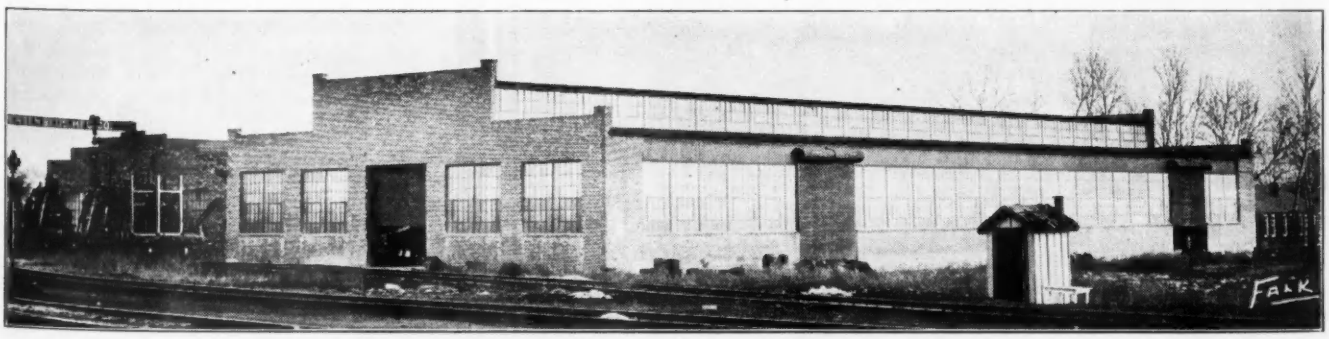
E. H. Edwards Manufacturing Company, San Francisco, announces the appointment of J. F. Fowler, Jr., as Gulf Coast sales representative for Edwards wire rope. C. T. McKinney, who opened the Gulf Coast territory for the company, is now serving the new East Texas area, where L. P. Gorsline, formerly located in Tulsa, is also now located, making headquarters at Tyler. J. E. Sloan has joined E. H. Edwards Manufacturing Company in charge of sales in the Mid-Continent territory, with headquarters in the Thompson Building, Tulsa.

Cooper-Bessemer Corporation, Mt. Vernon, Ohio, has issued a folder outlining a plan to enable users of Cooper-Bessemer engines to put 1931 efficiency into older models. A replacement steel cylinder head, power cylinder and gas economizer are included in the plan, which may be applied in whole or in part to any Type-8, Type-10, or Type EC engine now equipped with the 16-inch cylinder. The company will forward a copy of this folder upon request.

Electric Controller & Manufacturing Company, Cleveland, has issued a four-page folder in pictures describing the Youngstown safety limit stops for cranes, for the prevention of overhoisting accidents. This safety limit stop, which is completely described in the folder and shown under working conditions, disconnects the motor from the power line and brings it to a quick stop, without drift. After the limit stop has been tripped, the hook block can be lowered simply by reversing the controller. The Youngstown safety limit stop resets itself automatically. Bulletin No. 1035-F describes this stop for use on alternating and direct current cranes and shows many applications illustrating how it is applied to different types of both new and old cranes. A copy is available upon request as is a copy of the above mentioned folder.

The bibliography of North American geology for the 10 years 1919-1928, just issued by the United States Geological Survey as Bulletin 823, is an almost indispensable working tool for geologists in active service. It lists publications on the geology of the continent of North America and the adjacent islands, Panama, and the Hawaiian Islands. The main list is arranged alphabetically by authors and is followed by a very full index to the literature cited. This volume supplements Bulletins 746 and 747, which covered the same ground for the years 1785-1918, and the three bulletins, therefore, afford a complete picture of the vast amount of study that had been given to North American geology to the end of the year 1928. Bulletin 823 contains over 1000 pages and may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C., for $1.25.

Oster Manufacturing Company and Williams Tool Company, Cleveland, announce a new catalog covering their complete line of pipe threading tools and machines, the largest line of this kind in the world. The new book is of standard size, loose leaf and contains complete information in this extensive line. It is announced as a reference book for anyone who threads pipe. New Oster tools recently placed on the market are especially featured in the catalog. The Oster leader die stock, the chip chaser die stocks and reamers, the No. 414 reamer, the No. 412 power boy with gasoline engine drive, and the Tom Thumb pipe machine, the smallest portable pipe machine on the market, are among the new lines announced. A copy of this catalog may be secured by writing the manufacturers.



This is the most recent enlargement to the factory of Jensen Brothers Manufacturing Company at Coffeyville, Kansas. This new building is an addition to the main plant.

Squeaks From the Bull Wheel

▼ ▼ ▼

"Young lady, do you mean to tell me you've been carrying that money around in your stocking?"

"Why, daddy, you told me to put it where it would draw interest."

"Where did Dr. Spoof make all his money?"

"In the stork market, I believe."

She was just an optician's daughter —two glasses and she made a spectacle of herself.

"Tammas, Tammas, there's a cow in the garden!"

"Dinna stand here wastin' valuable time, get back and milk it before it gets oot."

"Oh, Ikey, guess vot I got at my house."

"Vot, a little home brew?"

"No, no, Ikey, a little Hebrew."

"Joe has a glass eye."

"Did he tell you that?"

"No, it just came out in the conversation."

Roy—The doctor says I can't play golf.

Ray—Didn't you know?

Jim: "Why are you painting your car black?"

Henry: "In memory of my dead battery and missing spark."

Judge (to speeder): "Well, now what good stories you got to excuse that speeding?"

Speeder: "Six of 'em, Judge. Stop me if you heard this one."

Oil Station Attendant: "Juice?"

Motorist: "Vell, vat if we are? Don't ve get no gas?"

It was a good many years ago that Deacon Callahan took his wife to the races.

Just as the horses were lining up at the barrier, Mrs. Callahan grasped the deacon nervously by the arm, and in a voice which was filled with emotion asked him for a safety pin, meanwhile grabbing frantically after something that seemed to be slipping around the knees.

Just then some one nearby shouted "They're off." And Mrs. Callahan fainted.

THE OPTIMIST

Ole Uncle Finn was a good old chap,
But he never seemed fer to care a rap.
If the sun forgot
To rise some day,
Just like as not
Old Finn would say:
"Uncommon dark, this here we're in,
But 'taint so bad as it might 'a' been."

But a big cyclone came 'long one day,
An' the town was wrecked and blowed away;
When the storm was passed
We stood around
An' thought at last
Ole Finn had found
The state o' things he was buried in
About as bad as it could a' been.

So we dug 'im out o' the twisted wreck,
And lifted a rafter off his neck.
He was bruised an' cut
And a sight to see;
He was ruined, but
He says, says he,
With a weak look 'round and a smashed-up grin:
"'Taint half so bad as it might 'a' been!"

But, after all, it's the like o' Finn
Makes this world fit fer livin' in.
When days are drear
And skies are dark,
It's good to hear
Some old cuss bark:
"Now, see here, son," with a cheerful grin,
"'Taint half so bad as it might 'a' been!"

—(*Buy Better Bulletin.*)

"Don't you know the difference between a horse and a donkey?" said the smart young lawyer.

"Well," said the witness, "I would never take you for a horse."

It was Sunday morning in the men's class in a famous church school.

"Will you please tell me," said a member to the teacher, "how far in actual miles Dan is from Beersheba? All my life I have heard the familiar phrase 'from Dan to Beersheba,' but I have never known the distance."

Before the answer could be given, another member arose in the back of the room and inquired: "Do I understand that Dan and Beersheba are the names of places?"

"Yes."

"That is one on me. I always thought they were husband and wife, like Sodom and Gomorrah."

Teacher—If a number of cattle is called a herd, and a number of sheep is called a flock, what would a number of camels be called?

Little Johnny—A carton.

Why don't we get a couple of

APPLEMANS?

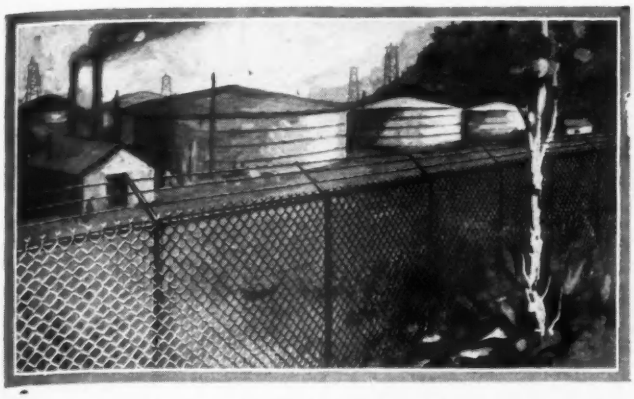
Driller: "Son, I'm about to freeze to death! I'd just as soon not work on a night like this."

Roughneck: "It'll be alright if we don't have to come out of the hole."

Driller: "Yeah . . . and you can bet your cockeyed life that we'll have two trips at least to make 'fore day on account o' those bits we got. They just haven't got the stuff."

Roughneck: "Say, why the Sam Hill don't we get a couple of APPLEMANS and finish this hole in a hurry?"

B.K. APPLEMAN
BEAUMONT, TEXAS



Get an ACCURATE ESTIMATE

When your Cyclone representative hands you a fence estimate, you know *exactly* what the job will cost. No extras to add. And you know the job will be installed *right* and *when specified.* For the Cyclone Fence Company is back of the Cyclone representative. Trained men install your fence. Get Cyclone prices before you buy. Phone, wire or write.

Cyclone Fence
REG. U.S. PAT. OFF.

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Direct Factory Branches and Warehouses:
Houston, Dallas, Tulsa
Also Sales Offices: New Orleans, Shreveport
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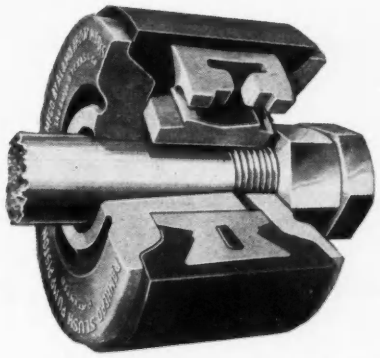
Cyclone — not a "type" of fence — but fence made exclusively by Cyclone Fence Company and identified by this trademark.

Ramhead
SLUSH PUMP PISTONS



Ramheads Make a Good Pump Better

Their improved design with a minimum of constant friction on liner gives smooth regular pump service. There is less friction, less slippage and no metal contact with liners . . . consequently, longer life and increased efficiency. Ramhead Pistons are simple, foolproof and easy to install. Order a set and test them for yourself.

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Whether you need standard tubes—or tubes designed to meet special requirements — we can serve you promptly and economically.

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BOILER TUBES

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Layne Service and Layne Cooperation From Start to Finish

Furnishing a $3,000,000 water supply system is a stupendous task. But - it is only one of the many responsibilities which the Layne organization have accepted in their water-developing work.

At St. Petersburg, Florida, a Layne Company arranged the entire financing, took care of all the engineering details and production, and stayed with the job until the required, guaranteed amount of water was flowing into the wells of the St. Petersburg municipal water system.

What Layne Engineers have done for others, they can do for you! There's a local Layne Engineer in your state, write for his address.

NO PROJECT TOO LARGE OR TOO SMALL

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MEMPHIS, TENNESSEE

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PUMPS & WATER WELLS

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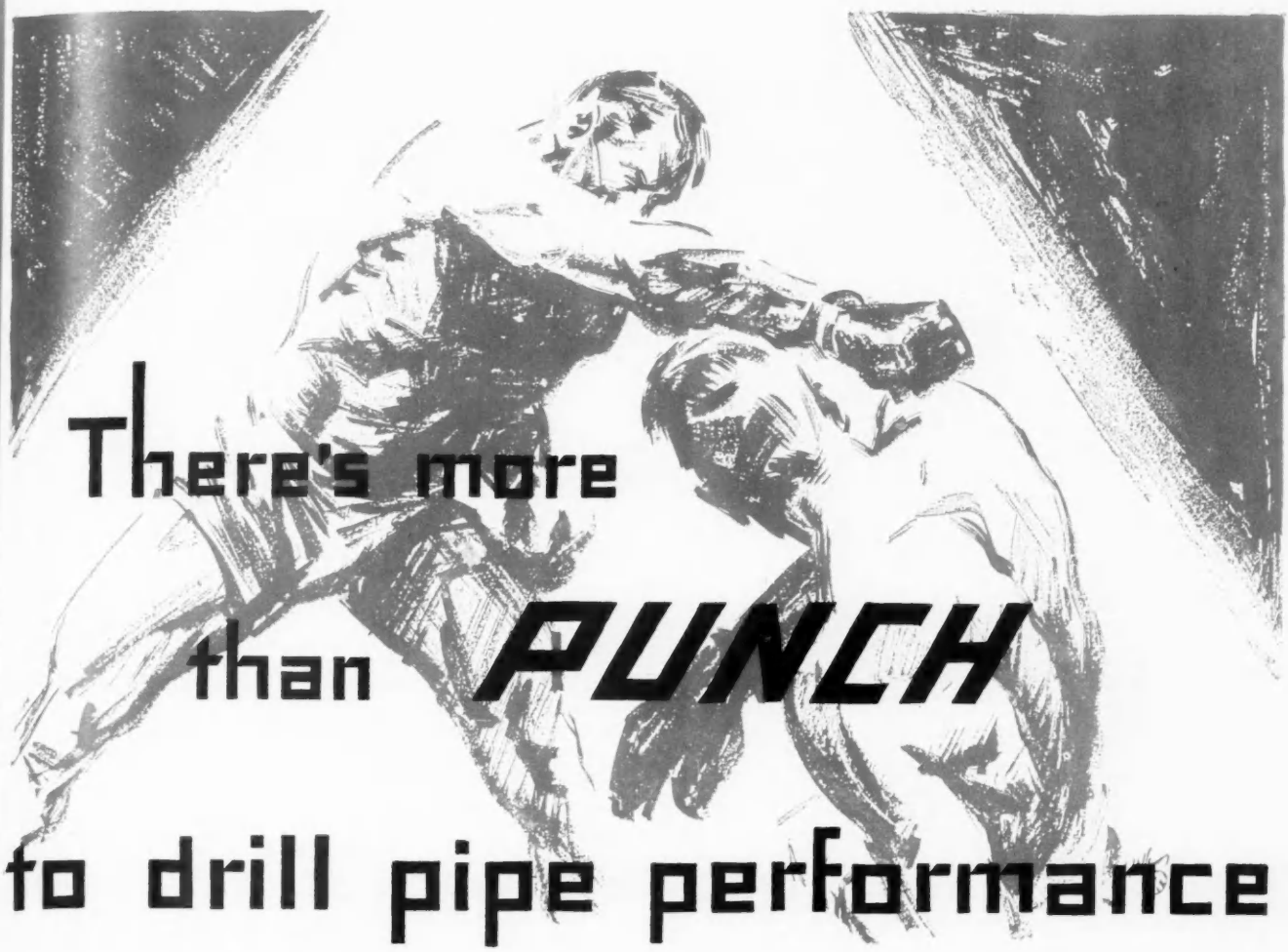

There's more than PUNCH to drill pipe performance

In good drill pipe, as in a good fighter, it isn't always brute strength that wins the battle. The ability to *take* punishment is as necessary as the ability to give it. As a string of pipe goes deeper and weight and pressure increase, ductility is every bit as essential as strength.

The selected steel from which Pittsburgh Seamless Interior Upset Drill Pipe is made is naturally tough and ductile. The modern equipment and methods by which it is pierced, rolled and upset increase its original strength. A normalizing operation at the finish restores the original toughness and ductility of its high-grade steel. Pittsburgh Seamless Pipe has the strength *and* the ductility that assure complete safety, no matter how deep the well or how heavy the string may be.

Pittsburgh Seamless Interior Upset Drill Pipe is available for quick delivery in a wide range of sizes and weights including minimum tensile grades of 95,000 and 110,000 pounds per square inch.

Pittsburgh Steel Products Co.
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Pittsburgh Steel Co.

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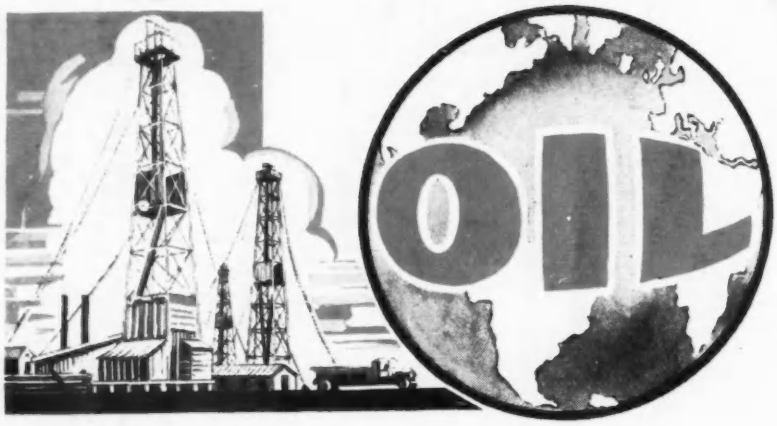
Pittsburgh Seamless

INTERIOR UPSET DRILL PIPE



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When an entire industry places its stamp of approval on a product—the dependability of that product has been proven under many and adverse conditions.

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